



# FORSYTH TECHNICAL INSTITUTE

1981-1983





# **Forsyth Technical Institute**

## **General Catalogue**

**1981-1983**

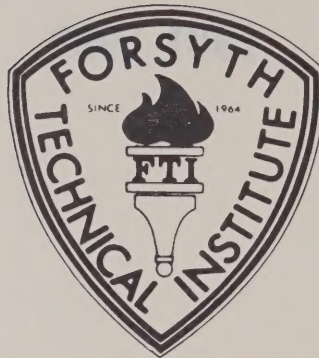


**An Equal Opportunity Educational Institution**

2100 Silas Creek Parkway

Winston-Salem, North Carolina 27103

Telephone: (919) 723-0371



The provisions of this publication are not to be regarded as an irrevocable contract between the student and Forsyth Technical Institute. The Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedures as deemed necessary. The Institute further reserves the right, at any time, to request a student to withdraw when such action is considered to be in the best interest of the institution.

Visitors to Forsyth Technical Institute are welcome.

Cover Photograph by Terry Blankenship



## GENERAL INFORMATION

## **FORSYTH TECHNICAL INSTITUTE**

### **Academic Calendar**

**1981-82**

#### **FALL QUARTER August 24, 1981—November 13, 1981**

August 24	Orientation for Faculty
August 25 & 26	Orientation and Registration for Students
August 27	First Day of Classes
September 1	Last Day to Add Classes
September 7	Labor Day Holiday
November 12	Last Day of Classes
November 13	Grade Posting

#### **WINTER QUARTER November 16, 1981—February 19, 1982**

November 16	Faculty Work Day
November 17 & 18	Registration
November 19	First Day of Classes
November 24	Last Day to Add Classes
November 26 & 27	Thanksgiving Holidays
December 22	Christmas Holidays to Begin at Close of School Day
December 23	Faculty Work Day
December 24-29	Christmas Holidays
December 30-31	Faculty Work Days
January 1	New Year's Holiday
January 4	Classes Resume
February 17	Last Day of Classes
February 18	Faculty Work Day
February 19	Grade Posting

#### **SPRING QUARTER February 22, 1982—May 18, 1982**

February 22	Faculty Work Day
February 23 & 24	Registration
February 25	First Day of Classes
March 2	Last Day to Add Classes
April 9	Student Holiday
April 12	Easter Monday Holiday
April 13	Classes Resume
May 14	Last Day of Classes
May 17	Grade Posting
May 18	Graduation

#### **SUMMER QUARTER May 19, 1982—August 20, 1982**

May 19	Registration
May 20	First Day of Classes
May 25	Last Day to Add Classes
July 5	Independence Day Holiday
August 5	Last Day of Classes
August 6	Grade Posting
August 8	Graduation
August 9-20	Annual Vacation

**SPECIAL SUMMER SESSION (Dates to be announced)**

## **FORSYTH TECHNICAL INSTITUTE**

### **Academic Calendar**

**1982-1983**

#### **FALL QUARTER August 23, 1982—November 12, 1982**

August 23	Orientation for Faculty
August 24 & 25	Orientation and Registration
August 26	First Day of Classes
August 31	Last Day to Add Classes
September 6	Labor Day Holiday
November 11	Last Day of Classes
November 12	Grade Posting

#### **WINTER QUARTER November 15, 1982—February 17, 1983**

November 15	Faculty Work Day
November 16 & 17	Registration
November 18	First Day of Classes
November 23	Last Day to Add Classes
November 25 & 26	Thanksgiving Holidays
December 22	Christmas Holidays to Begin at Close of School Day
December 23 & 24	Faculty Work Days
December 27-31	Christmas Holidays
January 3	Classes Resume
February 15	Last Day of Classes
February 16	Faculty Work Day
February 17	Grade Posting

#### **SPRING QUARTER February 18, 1983—May 17, 1983**

February 18 & 21	Faculty Work Day
February 22 & 23	Registration
February 24	First Day of Classes
March 1	Last Day to Add Classes
April 1	Student Holiday
April 4	Easter Holiday
May 13	Last Day of Classes
May 16	Grade Posting
May 17	Graduation

#### **SUMMER QUARTER May 18, 1983—August 19, 1983**

May 18	Registration
May 19	First Day of Classes
May 24	Last Day of Classes
July 4	Independence Day Holiday
August 4	Last Day of Classes
August 5	Grade Posting
August 7	Graduation
August 8-19	Annual Vacation

**SPECIAL SUMMER SESSION (Dates to be announced.)**



## HISTORY AND PURPOSE

Forsyth Technical Institute can trace its beginning to early adult and high school vocational courses which were available in Winston-Salem. In 1958, a Chamber of Commerce Study Committee recommended that an Industrial Education Center be built to provide the trade and technical training needed by local industry. A bond issue provided the money to start construction of two buildings late in 1959, and the first adult classes were begun in October of 1960. In 1963, a third building was constructed, and new technical programs were added. That same year the North Carolina Legislature passed the Community College Act, creating a statewide system of Community Colleges, Technical Institutes, and Industrial Education Centers. In January, 1964, the name of the school was changed to Forsyth Technical Institute. The operation of the school was transferred from the Winston-Salem/Forsyth County Schools to a local board of Trustees who govern the Institute following policies established by the State Board of Education and the State Department of Community Colleges.

The purpose of Forsyth Technical Institute is to prepare people for gainful employment and effective community membership. The major objective of the curriculum programs is to develop within the student a vocational or technical proficiency to meet the expanding advances in industry, business, and health occupations. The Institute is also dedicated to the concept of continuing education through the Adult Continuing Education Program directed toward self improvement in cultural, avocational, and vocational pursuits.

The course of study at Forsyth Technical Institute seeks to attain the stated purpose of the institution by:

- (1) providing effective teaching to all who enroll;
- (2) providing educational opportunities for adults who discontinued their formal training before mastering the basic skills in general education;
- (3) providing vocational training for students who are preparing to enter skilled trades;
- (4) providing technical training for those persons wishing to enter the more highly skilled occupations in business, industry, and health service;
- (5) providing technical, vocational, and enrichment courses on a part-time basis for adults now employed.

## EQUAL OPPORTUNITY/AFFIRMATIVE ACTION

### Discrimination

Forsyth Technical Institute is an equal opportunity institution, in compliance and agreement with the provisions set forth in Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. No person shall be discriminated against on the basis of race, sex, religion, age, national origin, or handicap, if otherwise qualified.

### Special Provisions for Handicapped Persons

It is the intent of the Institute that all courses of study be accessible to all qualified students. Handicapped persons should provide us with approximately one quarter of advance notice in order to identify any special equipment needs and facilitate adjustments in programs, facilities or schedules, if needed.



### Grievance Procedures

Applicants, employees and students of FTI may lodge grievances involving alleged violations of rights under the provisions of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973 with the Affirmative Action Officer or the Vice-President for Student Services.

## LOCAL ADVISORY COMMITTEES

Each program of study at Forsyth Technical Institute has its own advisory committee. The committees are composed of representatives of local businesses, industries, education and community organizations.

The advisory committees provide the necessary contact between the Institute and the community in an effort to maintain current and relevant programs of instruction to meet the needs of the community.

## LOCATION AND FACILITIES

The Institute is located at 2100 Silas Creek Parkway in the southwest section of Winston-Salem. It is easily accessible from U.S. Highway 52, North Carolina Highway 150, and Interstate Highway 40. Seven buildings house modern laboratories, shops, and classrooms. Arrangements have also made space available at the Allied Health building of North Carolina Baptist Hospital and Forsyth Memorial Hospital for nursing and allied health programs.

Off campus Individualized Learning Centers are located at the Forsyth County Public Library on W. Fifth Street, Whitaker Care Center of Forsyth Memorial Hospital, and Paddison Memorial Library in Kernersville.



## HOURS OF INSTRUCTION

Day classes are scheduled between the hours of 7:00 a.m. and 5:30 p.m., Monday through Saturday. Evening classes meet between the hours of 5:30 p.m. and 11:00 p.m., Monday through Friday.

Students in nursing and allied health programs can expect clinical practice to be scheduled between the hours of 6:30 a.m. and 11:00 p.m., seven days a week.

## ACCREDITATION

Forsyth Technical Institute is accredited by the Southern Association of Colleges and Schools, and is approved by the North Carolina State Board of Education.

The Associate Degree Nursing program and the Practical Nurse Education program are accredited by the North Carolina State Board of Nursing and the Allied Health programs are accredited by the American Medical Association.

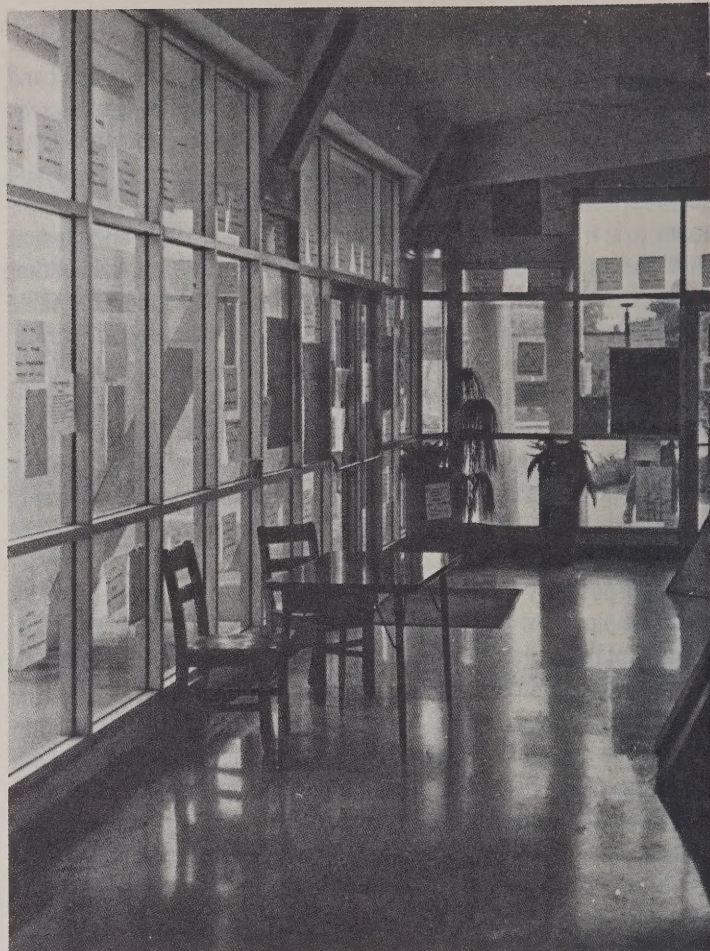
The Institute is a member in good standing of the American Association of Community and Junior Colleges.

Electronics Engineering Technology, Manufacturing Engineering Technology, and Mechanical Drafting and Design Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

## PROGRAMS OF STUDY

### ASSOCIATE IN APPLIED SCIENCE DEGREE

- Architectural Technology
- Associate Degree Nursing
- Banking and Finance
- Business Administration
  - Accounting Option
- Early Childhood Specialist
- Electronic Data Processing (Business)
- Electronics Engineering Technology
- Executive Secretarial Science
- Executive Secretarial Science—Machine Transcription Option
- Industrial Management Technology
- Manufacturing Engineering Technology
- Marketing and Retailing
- Mechanical Drafting and Design Engineering Technology
- Nuclear Medicine Technology
- Ornamental Horticulture
- Police Science Technology
- Radiologic Technology
- Real Estate
- Respiratory Therapy Technology—Technologist



### DIPLOMA PROGRAMS

- Air Conditioning, Refrigeration and Heating
- Automotive Body Repair
- Automotive Mechanics
- Building Trades Drafting
- Carpentry
- Diesel Truck Maintenance and Repair
- Electrical Installation
- Electronic Servicing
- Graphic Arts (Printing)
- Machinist
- Plumbing
- Practical Nurse Education
- Respiratory Therapy Technology—Technician
- Welding and Metal Fabrication

### ADULT EDUCATION

- Adult Basic Education
- Adult High School Program
- General Adult Enrichment Program
- Comprehensive Employment and Training Act Program
- New and Expanding Industry Training Programs
- Special Seminars and Workshops
- Management Development Training
- Vocational-Technical Extension Programs



## ADMISSIONS

### ADMISSION REQUIREMENTS

Forsyth Technical Institute is an Equal Opportunity Educational Institution and operates under an "open door" admissions policy. Admission to the Institute does not, however, imply immediate admission to the program desired by the applicant. Before a prospective student is admitted to a specific curriculum, placement tests will be scheduled and counseling interviews may be arranged. This process helps the student to evaluate his potential for success in his chosen field. When an evaluation of test scores and other evidence indicates a lack of readiness to enter a specific program, the student may be approved for the Pre-Technical or Pre-Vocational Program or he may be encouraged to re-examine his educational and occupational goals.

Forsyth Technical Institute will accept credit from other technical institutes and colleges. For specific information refer to "Transfer Student."

#### Admission to Associate Degree Programs

High school graduation, or the equivalent, is required of all applicants for degree programs. The high school equivalency certificate or the state adult high school diploma is acceptable in lieu of a regular high school diploma.

Applicants for the associate degree programs who are not high school graduates may arrange to complete high school in the Adult Education program, or take the high school equivalency examination (G.E.D.) at the Individualized Learning Center.

Applicants for admission to the engineering technologies must present one unit of algebra and one unit in plane geometry. Electronics Engineering Technology students must present units in algebra only. Applicants to the Electronic Data Processing program must present one unit in algebra. Applicants for admission to associate degree health programs must present one unit in algebra, one unit in biology, and one unit in chemistry. High school physics is recommended for Engineering Technology and Allied Health curricula.

Applicants who do not meet course requirements may arrange to make up the deficiency by completing special classes during the summer, or in the Adult Education Program, or in the Individualized Learning Center. Deficiencies must be made up prior to admission to a curriculum.

Applicants to associate degree programs should submit scores on either the Scholastic Aptitude Test or the Comparative Guidance and Placement Test. Information concerning the Scholastic Aptitude Test may be obtained from high school counselors. Information on taking the Comparative Guidance and Placement Test is available from the Student Services Office at Forsyth Technical Institute.

Applicants to Health Technologies may be subject to approval by the Health Admissions Committee. The members of the Admissions Committee come from the instructional staff of the health curricula and the Student Services staff. The purpose of the committee is to evaluate all available data concerning each applicant. The committee is mindful that much of the clinical training involves the student working with patients in local hospitals, that their role is constantly being expanded with increasing responsibilities, and that the program must educate and train in anticipation of future demands. A majority of the committee must concur that an applicant meets minimum criteria before he or she is admitted. If the program's enrollment quota is filled before all applications are received, late applicants are informed that they may reapply for the following year.

NOTE: The North Carolina Board of Nursing may deny license to individuals convicted of a felony or any other crime involving moral turpitude.

Any female student in Radiologic Technology or Nuclear Medicine Technology who is or becomes pregnant during the clinical portion of the training must notify the Department Dean and Chairman and will be advised of the possible harmful effects exposure to radiation may have on the developing fetus.

Applicants for Nuclear Medicine Technology and Radiologic Technology must be 17½ years old by their enrollment date (Radiation Safety Hazard Regulation for minors).

#### Admission to Diploma Programs

Applicants for one-year vocational programs must be high school graduates or meet North Carolina equivalency certificate (GED) standards. For non-high school graduates with special needs, however, exceptions may be made under certain circumstances in all vocational programs **except Practical Nurse Education and Respiratory Therapy Technology.**

Applicants who are not high school graduates may arrange to complete high school in the Adult Education program or take the high school equivalency examination (GED) at the Individualized Learning Center. Generally, applicants are admitted into most vocational programs on the basis of high school records. However, scores on the SAT or the CGP may be required. Questions concerning the need for testing should be addressed to the Admissions Office.

Because of the specialized nature of the vocational programs, one unit of high school algebra is recommended for Air Conditioning, Building Trades Drafting, Electrical Installation, Electronic Servicing, Machinist, and Practical Nurse Education. High school geometry is also recommended for Building Trades Drafting and Machinist; biology is also recommended before entering Practical Nurse Education. Algebra I, Biology, and Chemistry are required for entry into Respiratory Therapy Technology.

Admission to the Practical Nurse Education program may also be subject to approval by the Health Admissions Committee.\*

#### Admission to Continuing Education and Extension Programs

Persons to be enrolled must be eighteen years of age or older. Further information concerning admissions and registration procedures may be obtained from the office of the Dean of Continuing Education.

\*See Admission to Associate Degree Programs with reference to health programs.



## ADMISSIONS PROCEDURES

Applicants for admission to any degree or diploma program should:

1. Obtain an application form from the Admissions Office or from a high school counselor.
2. Submit the properly completed application to the Admissions Office.
3. Arrange to take the Comparative Guidance and Placement Test through the Student Services Office. Scholastic Aptitude Test (SAT) scores may be substituted for the Comparative Guidance and Placement Test.
4. Request that a transcript of all high school and post high school academic work be sent directly to the Admissions Office.
5. Submit recommendations if requested.
6. Report for a personal interview, if requested, on the date scheduled by the Admissions Office. At this interview test scores and previous academic records will be evaluated and the applicant will be advised as to eligibility for admission to the desired program. If a personal interview is not required, the student will be notified of his status in writing.
7. Submit a properly completed health appraisal form when requested.

## SPECIAL INFORMATION FOR FOREIGN STUDENTS

Forsyth Technical Institute does not issue the I-20 Form required by the United States Office of Immigration for foreign students to study in the United States. The Institute will be glad to help interested students in gaining information about colleges and universities that do offer the I-20 Form. Foreign students under other types of visas are considered for admission through normal admission procedures.

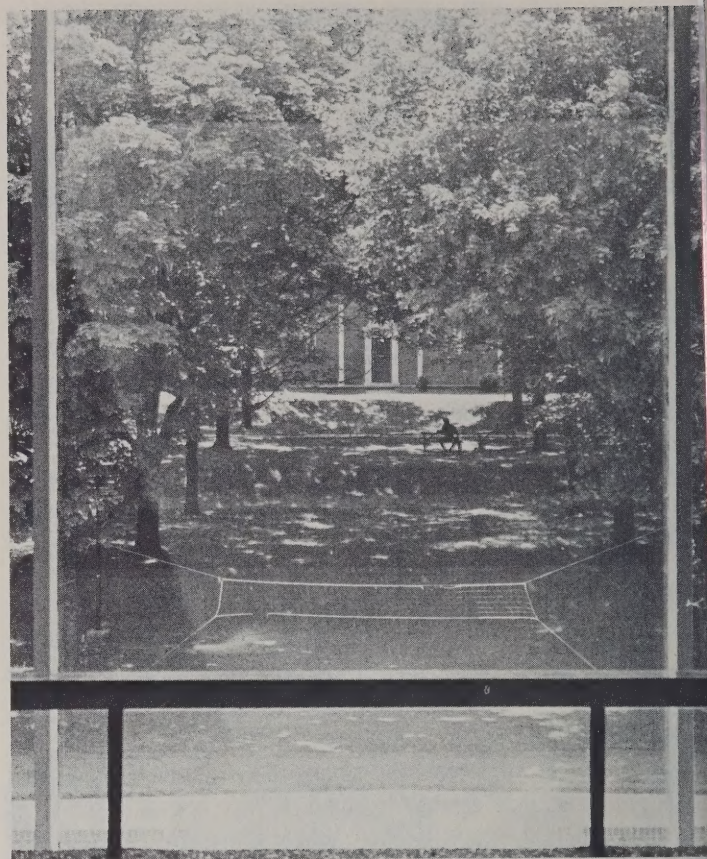
Applicants graduating from high schools outside the United States must demonstrate high school proficiency through satisfactory scores on either the G.E.D. or Comparative Guidance and Placement Test.

## READMISSIONS

Students who have withdrawn in good academic standing should contact the Admissions Office to update their application. If the application for readmission is for a different curriculum, standard admission requirements for new students will apply.

Students who have withdrawn while on academic probation or who have been suspended for academic deficiencies must reapply through the Admissions Office. Approval for readmission for the same curriculum or an alternate selection will be based on the applicant's ability and aptitude, the time elapsed since withdrawing, recommendations of the Academic Review Committee, and the applicant's career objectives. Students granted readmissions may have course load restrictions, specific grade requirements and/or required counseling sessions in order to remain enrolled in the curriculum. When good academic standing has been re-established, the restriction(s) will be removed.

Students who have been suspended for disciplinary reasons must reapply through the office of the Vice President for Student Services.



## TRANSFER STUDENTS

Applicants who have attended other institutions of higher learning may transfer credit earned in courses comparable in content, objective, quality, and credit hours to those offered at Forsyth Tech. Direct transfer of credit may be granted if the student is transferring from a regionally accredited institution, or a member of the North Carolina Community College System. Provisional transfer credit may be granted if the student is transferring from an institution neither regionally accredited nor a member of the North Carolina Community College System (see "Provisional Transfer Credit" section).

No grade lower than a "C" may be transferred from other institutions. Courses taken on "Pass/Fail" basis will be considered only upon receipt of information on requirements necessary to receive a "Pass" grade. All final transcripts for transfer work should be received at least two weeks prior to enrollment. Final decision on transfer credit will be determined by the Director of Admissions and Records.

Credits earned at Forsyth Tech, including hours attempted, hours earned, and quality points, will be brought forward to any curriculum when the courses are identical. A student's initial cumulative grade point average in a new curriculum will be computed from the credits brought forward to that curriculum. For courses that are not identical but are comparable, credit will be granted in the same manner as courses transferred from another institution. Such courses will not be used in computing grade point average.

Many courses with a technical or skill content have time limitations on the acceptance of transfer credit. (This includes credits earned at other institutions and/or credits earned at F.T.I.). Generally, courses of this classification taken more than five years prior to entry into the Institute cannot be considered for transfer purposes. In such instances, students may challenge out-of-date courses by proficiency examinations when appropriate and available.



# FORSYTH TECHNICAL INSTITUTE

## CURRICULUM REQUIREMENTS FOR ADMISSION

**NOTE:** All curricula require that a completed application and official high school transcript or GED scores be submitted. Students with post-secondary academic work must also submit official transcripts from each institution. Applicants to all non-health programs may submit college transcripts in lieu of high school records, but must still be able to provide proof of required high school courses, if necessary.

**Key:** Req. = Required  
\* = Recommended

	SAT or CGP	3 Reference Forms	Physician's Report	Interview	Specific High School Courses								
					Alg I	Geom	Alg II	Bio	Chm	Phy	Bkpg	Typ	Shtnd
<b>SPECIAL CREDIT</b>	*			Req									
<b>TECHNICAL CURRICULA</b>													
ACCOUNTING OPTION	Req				*						*		
ARCHITECTURAL TECHNOLOGY	Req				Req	Req	*			*			
ASSOCIATE DEGREE NURSING	Req	Req	Req	Req	Req		*	Req	Req				
BANKING & FINANCE	Req				*						*	*	
BUSINESS ADMINISTRATION	Req				*						*	*	
EARLY CHILDHOOD SPECIALIST	Req	Req	Req	Req	*								
ELECTRONIC DATA PROCESSING	Req				Req	*	*				*	*	
ELECTRONICS ENGINEERING	Req				Req		*			*			
EXECUTIVE SECRETARIAL SCI.	Req										*	*	*
EXECUTIVE SECRETAR. - MTO	Req										*	*	*
INDUSTRIAL MANAGEMENT	Req				Req	*	*				*		
MANUFACTURING ENGINEERING	Req				Req	Req	*			*			
MARKETING & RETAILING	Req										*		
MECHANICAL DRAFTING	Req				Req	Req	*			*			
NUCLEAR MEDICINE	Req	Req	Req	Req	Req		*	Req	Req	*			
ORNAMENTAL HORTICULTURE	Req												
POLICE SCIENCE	Req				*								
RADIOLOGIC TECHNOLOGY	Req	Req	Req	Req	Req		*	Req	Req	*			
REAL ESTATE	Req										*		
RESPIRATORY THERAPY TECHNO.	Req	Req	Req	Req	Req		*	Req	Req	*			
PRE-TECHNICAL	Req			X									
<b>VOCATIONAL CURRICULA</b>													
AIR CONDITIONING	Req				*								
AUTO BODY REPAIR	**												
AUTO MECHANICS	**												
BUILDING TRADES DRAFTING	**				*	*							
CARPENTRY	**												
DIESEL MAINTENANCE	**												
ELECTRICAL INSTALLATION	Req				*								
ELECTRONICS SERVICING	Req				*								
GRAPHIC ARTS - PRINTING	Req				*							*	
MACHINIST	Req				*	*							
PLUMBING & HEATING	**												
PRACTICAL NURSING	Req	Req	Req	Req				*					
RESPIRATORY THERAPY TECHN.	Req	Req	Req	Req	Req		*	Req	Req	*			
WELDING	**												
PRE-VOCATIONAL	Req			X									

\*\*Entrance Exam not required if student is in upper two-thirds of graduating class, or has attended post-secondary institution, or has minimum GED score total of 245.

X - An individual interview is required and a group placement test may be required.

## PROVISIONAL TRANSFER CREDIT

Students transferring from an institution not regionally accredited but recognized by the Council on Post-Secondary Accreditation (COPA) may be granted provisional transfer credit under the guidelines and procedures as set forth by the Office of Student Services and approved by the President.

1. Applicants from institutions that are not regionally accredited or that are not members of the North Carolina Department of Community Colleges must meet all the requirements in effect for admission as an entering student into the specific curriculum.
2. Upon receipt of an official final college transcript, credit will be determined according to FTI curriculum guidelines and the student will be notified of courses provisionally accepted toward graduation. Grades lower than a "C" will not be considered for transfer. Courses completed on a "Pass/Fail" basis can be considered only upon receipt of information on requirements necessary to receive a "Pass" grade.
3. Student must satisfactorily complete 24 quarter hours of credit academic work at FTI before provisional transfer credit is officially accepted and recorded on FTI transcript. The term "satisfactory" is defined as having a minimum 2.00 Cumulative Grade Point Average in FTI course work and meeting any other academic requirements necessary to continue in the specific curriculum at the Institute.
4. It will be the responsibility of the student to request that provisional transfer credit be accepted officially after the minimum quarter-hours-in-residence have been met. The request should be made to the Director of Admissions and Records or the Registrar.
5. During the interim period between initial enrollment and official acceptance of transfer credit, students may meet pre-requisites for courses that have such requirements only by completing prerequisite courses at FTI.

**NOTE:** In some technical or skill-level courses proficiency examinations (when appropriate and available) might still be necessary to determine proper academic placement.



## REGISTRATION

The Institute operates on the quarter system. Each quarter is eleven weeks in length and students who are pursuing diploma or degree programs must register at the beginning of each quarter. All students are expected to register during the time set aside for that purpose. Registration dates are listed in the calendar for the academic year.

Tuition and fees must be paid on the day of registration.

## LATE REGISTRATION AND SCHEDULE CHANGES

All registration for a class is closed after the fourth class day. A student may register late through the fourth class meeting date providing:

1. That the class is not cancelled or closed.
2. That the student has the consent of his advisor and the Office of Student Services and has met admissions and prerequisite requirements.
3. That the student pay a \$5.00 late registration fee in full at the time of late registration unless he registers late at the request of the Institute.

All class schedule changes must be approved by the student's advisor and notification of such changes submitted to the Records Office.

## PRE-REGISTRATION

The pre-registration period for continuing students is held during the latter part of each quarter. During this period, each continuing student is expected to meet with his advisor to determine his schedule of courses of the upcoming quarter. Any questions arising during this pre-registration period concerning transfer credit for course(s) should be directed to the Records Office.

## ORIENTATION

All new full-time students are expected to participate in an orientation program conducted by members of the faculty, staff or student government. Part-time students are urged to participate also. The purpose of orientation is to acquaint the student with the administrative personnel, faculty, and student leaders. The regulations, policies and privileges of the Institute as set forth in the catalogue are discussed and interpreted.



## ACADEMIC INFORMATION

### GRADUATION REQUIREMENTS

Graduation requirements for the degree or diploma will vary according to curriculum. The student should refer to the specific section of the catalogue which applies to his program so that he may be certain of the course requirements for graduation. All students must earn a cumulative grade point average of 2.00, and must have received a passing grade in all required subjects, in order to be eligible for graduation.

Grade Point Average (G.P.A.) is obtained by dividing the total quality points earned by the total number of credit hours work attempted.

### COURSE NUMBERING SYSTEM

Courses are numbered in accordance with the system approved by the North Carolina Department of Community Colleges.

1. Each course is designated by a three-letter prefix indicating the general subject area.
2. A number indicating a specific course within an area follows the letter prefix according to the following rules:
  - a. Pre-Technical courses 0-99
  - b. Technical courses 100-299
  - c. Vocational courses 1000-1099
  - d. Adult education courses beyond high school 2000-3099

### GRADING SYSTEM

The following grading system is used by Forsyth Technical Institute:

No. Grade	Letter Equivalent	Description	Quality Points Per Quarter Hour
94-100	A	Excellent	4
86-93	B	Good	3
78-85	C	Fair	2
70-77	D	Passing	1
Below 70	F	Failing	0
Official Withdrawal	W		
Withdrawn Passing	W-P		
Withdrawn Failing	W-F		
Incomplete	Inc.		
Audit	Y		

The letter equivalent system is used for recording and reporting grades.

#### W — Official Withdrawal

An Official Withdrawal is the grade given to a student who voluntarily withdraws from a course through the tenth class day of a quarter and has notified the instructor and the Registrar, in person, or in writing of his decision.

#### W-P — Withdrawn Passing

Withdrawn Passing is the grade given to a student who voluntarily withdraws from a course after the tenth class day of a quarter with a passing grade, and has notified the instructor and the Registrar in person or in writing, of his decision.

#### W-F — Withdrawn Failing

Withdrawn Failing is the grade given a student who at any time after the fourth class day withdraws from a course without first notifying the instructor and the Registrar, in person or in writing, of his decision.

Students who withdraw after the tenth class day and are failing at the time of withdrawal receive a grade of W-F.

#### INC. — Incomplete

The grade of Incomplete is given only if a student has a valid reason for failure to complete the work on schedule. Illness, absence on company business, or other circumstances beyond the student's control are considered valid reasons for non-completion of work. The student must have advised his instructor of the circumstances prior to the end of the quarter and have been granted an Incomplete grade. The instructor must have specified the work to be made up in order to remove the incomplete and a date by which the work must be completed. If the conditions necessary to remove the Incomplete will require additional hours of instruction, the student must re-register for the course. If, on the other hand, the student needs only to complete work without instructional supervision, this must be completed no later than the following quarter or the course must be repeated.

Any student who receives an Incomplete on a course that is a prerequisite for another course must make up the incomplete work by the end of the drop/add period if he is registered for the next succeeding course. Should the student fail to remove the Incomplete by the end of the drop/add period, he must drop the course which is dependent on the prerequisite.

#### Y — Audit

Any audit of courses must have prior approval of the Office of Student Services and the department involved.

Students auditing courses are not required to take examinations or hand in written work, but may do so if they wish. No grade or credit toward a degree or diploma is given. Audit may not be changed to credit, or credit to audit after the last day of drop/add. Normal attendance policies will apply.

### HONORS AND HIGH HONORS LISTS

Soon after the end of each quarter, in order to honor students who have earned outstanding scholastic records, the Institute identifies those students for the Honors and High Honors lists. In order to be named to the Honors List, a student must take a minimum of 12 quarter hours of credit work and earn at least a 3.00 average, but less than a 3.50 average. In order to be named to the High Honors List, a student must take a minimum of 12 quarter hours of credit work and earn at least a 3.50 average.

### WITHDRAWALS

A student who must withdraw from school, either permanently or temporarily, before graduation should make an official withdrawal. He should notify the Records Office and a member of the counseling staff, either by telephone or in person, and should complete the withdrawal information sheet. This information is necessary to assure that the student's status at the time of withdrawal is clearly identified in order to expedite re-entry, transfer of credit to another institution, or to provide potential employers with accurate educational information. A student who must withdraw from a course should contact the Records Office to make an official withdrawal. After contacting the instructor, the official withdrawal grade and the official drop date will be determined. The last day of class attendance will be the official drop date for the class.

## ACADEMIC STANDING

To be in good academic standing, a beginning student must have earned a grade point average of 2.00 by the end of the first quarter, and a cumulative grade point average (G.P.A.) of 2.00 must be maintained thereafter.

A student failing to attain the required grade point average in any quarter will be placed on academic probation for the following quarter.

A student on academic probation whose work has improved to the point where he meets the required cumulative grade point average will automatically be removed from probation.

A student who has been placed on academic probation and who does not earn the required grade point average in the next quarter will be required to register for a reduced load, or he may be required to withdraw from the program and be directed to a more suitable curriculum.

Each student enrolled in the Institute is expected at all times to be aware of his academic status and to be responsible for knowing he has failed to meet the requirements as outlined above for continuing in school. Instructors, faculty advisors and counselors in the Office of Student Services are available for conferences, but it is the responsibility of the student to seek extra help if it is needed.

At the end of each quarter, each departmental Academic Review Committee meets to review students' academic standing. If a student's standing is changed in any way, other than removal from probation, the student will be notified in writing by the respective department dean.

## ACADEMIC APPEAL

If a student planning to register for the next quarter wishes to appeal the decision of the departmental Academic Review Committee, he or she must make the appeal in writing to the appropriate department dean within twenty-four (24) hours after notification of his/her status.

The division dean will reconvene the departmental Academic Review Committee and hear the appeal and will notify in writing the results to the student, the Vice-President for Instruction, and the Vice-President for Student Services.

If satisfaction is not achieved with the appeal to the departmental Academic Review Committee, the student may appeal in writing to the chairman of the Student Appeals Committee.

## COURSE REPEAT RULE

The last grade earned on a repeat course, whether F or higher, will be the grade computed for grade point average. Withdrawal grades (W, WP or WF) will not be considered as repeat grades.

If a student fails any course in his trade or technical curriculum, it will be necessary for him to repeat that course until a passing grade is obtained in order to receive the State Vocational Diploma or the Associate of Applied Science degree. The student is responsible for scheduling make-up courses required for graduation.

If a student fails one of the courses in his major subject area, he may be referred to the Office of Student Services for counseling.

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act of 1974 provides many safeguards regarding the confidentiality of and access to student records.



1. Students may review their educational records by a request in writing to the Registrar.
2. Student records will not be reviewed by 'third parties' unless permission is obtained in writing from the student. Exceptions may be made for teachers and administrators if the information is for educational purposes. Exceptions may also be made for parents who claim the students as dependents. The Vice-President of Student Services will make the final decision concerning access to records.
3. Official transcripts will be issued only when a written request is received from the student.
4. Forsyth Technical Institute does not publish or distribute directory information or any personally identifiable information.

## ADVISOR/ADVISEE PROGRAM

Because problems of communication often tend to impersonalize student-faculty relationships, Forsyth Technical Institute has an Advisor-Advisee program which is designed to provide a more personal atmosphere for the student and to increase communications between students and faculty. Each student at Forsyth Technical Institute is assigned an advisor from his own curriculum. Through periodic conferences between the student and advisor, it is hoped that the student will be better able to choose his academic program from quarter to quarter and that potential problems can be solved.

Each advisor will have posted regular office hours in order for the student to arrange conferences to discuss or explore any problem of condition which is of importance to him. The advisor will assist the student during pre-registration, registration, and in course selection.

Each student is assured that all discussions are confidential and that when necessary, he may be referred to other guidance resources to help with his particular concern.



## ATTENDANCE

1. Class attendance is calculated from the first officially scheduled class meeting through the last scheduled class meeting which includes the drop/add period.
2. Students will be informed in writing at the beginning of the quarter when an instructor requires special attendance rules for the course.
3. A student must satisfy his instructor that he should be permitted to remain in a course and attend classes after he incurs any absence in excess of the following:
  - a. Three (3) regular one hour class sessions.
  - b. Two (2) practicum (shop, laboratory, or clinical experience) sessions which meet for two or more hours.
  - c. Two (2) regular one hour class sessions, and one (1) practicum (shop, laboratory, or clinical experience) session which meets for two or more hours.
4. When a student is absent from a class and practicum (shop, laboratory, or clinical experience) session which meet consecutively, each session missed will be counted as an absence.
5. Students have full responsibility for accounting to their instructors for absences.
6. Students are expected to report for class and practicum (shop, laboratory or clinical experience) on time. Habitual tardiness may, at the discretion of the instructor, be considered in computing class attendance.
7. Students are expected to attend all class, laboratory, shop, and practicum sessions. No passing grade will be issued for a course if, for whatever reason, a student has been absent for 25% of the total possible class time per course per quarter.

## COURSE LOAD

The suggested quarter hours per quarter are shown for each curriculum. It is the policy of the Institute to permit students to enroll in additional subjects and laboratory work beyond those shown in the catalogue, providing space is available, prerequisites have been met and approval has been obtained. Students enrolling in more than 24 credit hours per quarter must have approval of the Vice President for Student Services.

## TRANSFER OF EARNED CREDIT BETWEEN PROGRAMS

Credits earned in any degree program may be credited toward a degree or diploma program upon evaluation by the Office of Student Services. Credits earned in a diploma program are not acceptable for transfer to an associate degree program but may be credited toward a second diploma major.

## STUDENT CLASSIFICATION

- Full-time: A student who is enrolled in 12 or more quarter hours of course work.
- Part-time: A student who is enrolled for less than 12 quarter hours of work.
- Special: A student who is enrolled in credit courses but who is not working toward a degree or diploma. A special student must meet the regular admissions criteria. Permission to register as a special student is granted at the discretion of the Office of Student Services and the instructor.



- Audit: A student who is enrolled in regular course work but who is not receiving credit for work undertaken.
- Freshman: Any student who has earned less than 45 credit hours.
- Sophomore: Any student who has earned 45 credit hours or more.

## GRADE REPORTS AND TRANSCRIPTS

Shortly after the end of each quarter, student grade reports are available to students in the Records Office.

Transcripts of the student's records cannot be sent to other schools, prospective employers, or to the student himself, unless an official request is made in writing by the student to the Records Office.

Grade reports and transcripts are withheld until all student obligations to the Institute have been met.





## STUDENT CONDUCT AND RESPONSIBILITIES

### DISMISSAL AND SUSPENSION

The following regulations govern dismissal from class, or from the Institute for students of Forsyth Technical Institute.

Any instructor may request a student to leave his class, lab, shop, or clinical area when, in the opinion of the instructor, the student's conduct or personal habits disrupt normal classroom procedures. The instructor will immediately notify, in writing, his Division Dean and the Student Services Office of his actions, identifying the student and the cause for dismissal from class.

The burden of requesting re-entry to the class, lab, shop, or clinical area shall rest with the student involved. Request for re-entry must be made to the instructor prior to the next scheduled meeting of the affected class. If the instructor feels that additional counseling is needed for this particular student, the instructor shall have the prerogative of asking the student to meet with the Division Dean or the counseling staff prior to his being readmitted to the instructor's class.

If, in the opinion of the instructor and the Division Dean, the conduct of the student or his personal habits are such that he should be permanently dismissed from the class or from the Institute, a written report initiated by the instructor and approved by the Division Dean must be sent to the Executive Vice President for Instruction within 24 hours. The Division Dean will inform the student in writing of his dismissal. If the student wishes to appeal this decision he must do so in writing to the Student Appeals Committee.

### STUDENT APPEALS COMMITTEE

The Student Appeals Committee will hear the appeals of any student after the appeal process has been exhausted at the departmental or division level. The Student Appeals Committee will convene as soon as possible after the Chairman of the Committee has received and validated a written appeal from a student. The Student Appeals Committee will hear the appeals of any student regarding the following:

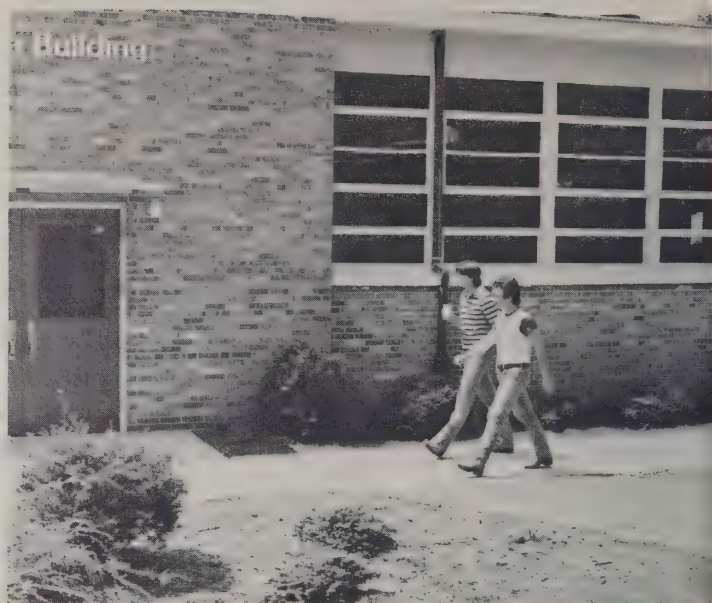
1. Discipline
2. Dismissal
3. Academics
4. Admissions
5. Residency
6. General Discriminatory Practices

The appeals will be heard under the following conditions:

1. The student **must** submit a written statement of the appeal that contains factual and valid reasons for the appeal to the Committee Chairman. The Committee Chairman reserves the right to return the written appeal for clarification, or to reject the appeal, if factual information or reasons for appeal are not stated. The student may submit a statement of appeal to the Vice President for Student Services to be forwarded to the Committee Chairman.

2. The Committee will act as a decision-making body regarding the appeal only.

3. The Committee will submit its decision to the President of the Institution for review and appropriate action, including notification to the parties involved. In the case of residency classification, the Committee will notify the student of its decision. The next step in the appeal process is to the State Residence Committee.



### STUDENT DRESS CODE

Forsyth Technical Institute continually has prospective employers and other visitors on campus. Also many companies seeking to relocate or open new industries will have representatives visit this campus.

With this in mind, while Forsyth Technical Institute students dress informally, cleanliness and neatness of appearance are strongly encouraged. Each instructor has the right to ask a student to leave his class, shop, or clinical experience area if the student's personal appearance or attire is objectionable to the other students, or if this attire can be construed to be a hazard to safe operations.

### PARKING REGULATIONS

Visitors are welcome on the campus of Forsyth Technical Institute. Designated visitor parking areas will be indicated by campus signs. Any visitor receiving a ticket should return it to the person or office visited.

Students planning to park on campus are required to purchase a parking decal at the time of registration. Specific rules and regulations governing parking will be issued upon vehicle registration and may also be found in the current issue of the Student Handbook.

### USE OF FACILITIES

The buildings and their contents exist solely for the education of our adult population. The use of the facilities for any other purpose is strictly prohibited. Any use of these facilities for personal gain will result in immediate disciplinary action.

Smoking is prohibited in all classrooms, laboratories, and shops.

Animals are prohibited inside the buildings. Any animals on the campus grounds must be on a leash in compliance with the City of Winston-Salem Leash Law Ordinance Sec. 3-18.

Children are not allowed in classrooms or shop areas during class sessions. It is further prohibited for children to be left unattended in library or canteen areas, or on campus grounds.





## GRADUATION

### GRADUATION REQUIREMENTS

A student wishing to receive a degree or a diploma from this institution must fulfill all course requirements.

A student who has earned a cumulative grade point average of 3.50 is eligible to be graduated with high honors.

A student who has earned a cumulative grade point average of 3.00 is eligible to be graduated with honors.

A student who has earned a cumulative grade point average of 2.00 is eligible for graduation.

Course requirements vary according to program. The student should refer to the catalogue for course requirements for graduation from his program of study and should be aware at all times of his progress toward graduation.

It is the further responsibility of the student to complete an official INTENT TO GRADUATE form at least six weeks prior to his last registration. These forms may be obtained from the faculty advisor who will assist the student in completing the form, and will submit the form to the Records Office.

### COMMENCEMENT EXERCISES

Commencement exercises are held at the end of spring and summer quarters on the date published in the academic calendar. Degrees and diplomas are awarded at this time. Students are expected to notify the Records Office as to their intention to participate in the exercises.

### COMMENCEMENT MARSHALS

The rising sophomores who have maintained the highest scholastic averages during their freshman year are honored by being chosen commencement marshals. The two marshals who have the highest academic averages are named chief marshals.

### SCHOOL RINGS AND PINS

Any student in good standing who has completed at least one-half of the credit hours required for graduation in his curriculum may order the official school ring. The student is required to pay a \$20.00 deposit at the time the ring is ordered, with the balance due upon delivery.

Pins for the health programs are also available. Orders for both pins and rings may be placed through the Institute Bookstore.

## TUITION AND FEES

### TUITION

Since the Institute receives funds from local, state and federal sources, tuition charges are very low. The charges are set by the State Board of Community Colleges and are subject to change without notice.

#### Tuition:

12 quarter hours or more	\$39.00 per quarter
Less than 12 quarter hours	\$3.25 per quarter hour
Late registration fee	\$5.00

No tuition is charged for non-credit classes in the Continuing Education Program. However, there is a \$5.00 registration fee. No tuition or fee is charged for Adult Basic Education courses. Normal tuition rates will apply if courses are taken in the I.L.C. for curriculum credit. No tuition or fee is charged for individuals age 65 and over. Instructional materials fees are set to meet instructional needs in certain types of classes.

Summer Session and Audit Fees are charged at the same rate as those shown above.

A student who is not a legal resident of North Carolina must pay non-resident tuition. A person is not deemed eligible for the resident rate of tuition unless he has established and maintained his legal residence in North Carolina for at least twelve months prior to enrollment. Currently, out-of-state tuition is \$16.50 per quarter hour or \$198.00 per quarter for a full-time student.

Students who are in doubt as to their status as a resident should request clarification by consulting the Office of Student Services before registration. Students may appeal their residence for tuition status to the Director of Admissions and Records.

### STUDENT ACTIVITY FEE

It is the policy of this institution that a student activity fee be charged. This normally will be from \$3.00 to \$7.00 per school quarter.

The use of such a student fee is at the discretion of the Board of Trustees upon recommendation of the President. In general, these fees are used for student-centered activities and for the general benefit of the student body. Student activity fees are not refundable for any reason.

### BOOKS AND SUPPLIES

Textbooks and supplies are not furnished by the Institute, but are the responsibility of the student and may be purchased at the Institute Bookstore. The cost of books and supplies varies from program to program, and from quarter to quarter.

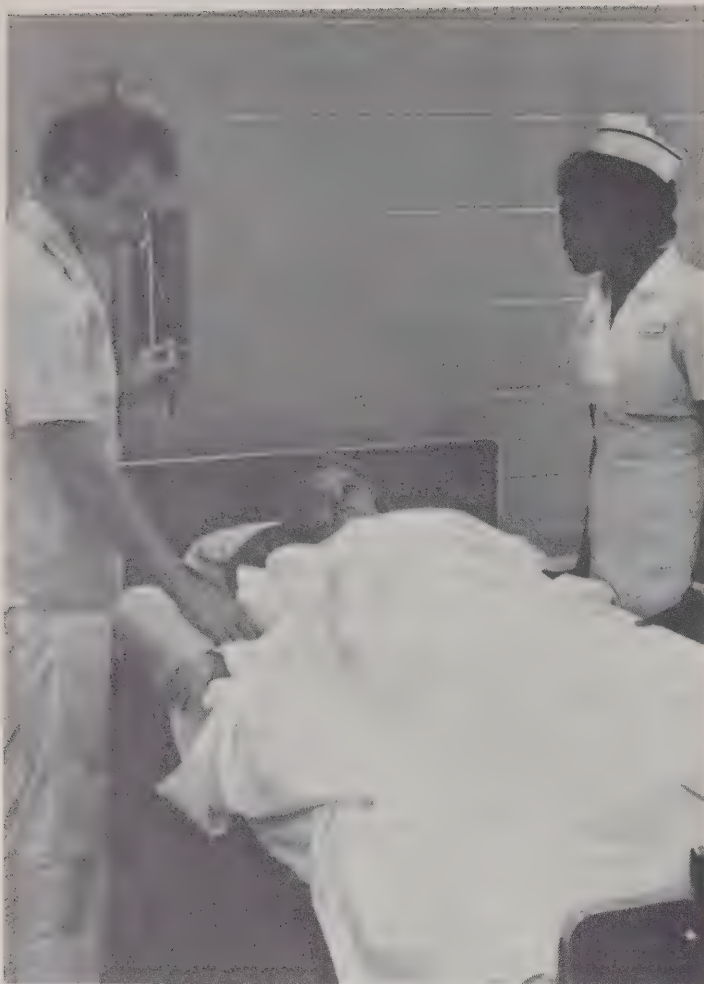
### UNIFORMS

Uniforms and other special wearing apparel shall be paid for by the students.

The initial cost of uniforms and special equipment for students in the various health programs ranges to approximately \$200.00 depending upon the program.

The cost of uniforms is estimated and subject to change. Students should inquire for details during admission interviews.





### **TUITION REFUNDS/HOLDS**

Tuition is not refundable. Exception will be considered where the cause of withdrawal is completely beyond the student's control, such as serious illnesses. In such cases, two-thirds of the tuition paid may be refunded only if the student withdraws and submits a request within ten calendar days after the first day of classes, as published in the academic calendar. If a student withdraws from a course or courses, but remains enrolled in the Institute, he will receive no refund for the course dropped. Refunds of five dollars or less will not be made except for classes cancelled by the Institute.

A student who withdraws from all courses may submit a request that his tuition be held. A request for tuition hold will be considered when the cause of withdrawal is completely beyond the student's control and the student does not remain enrolled in the Institute. If the request is granted, the tuition will be credited to his account so that it may be applied toward costs for any one of the following four quarters.

Fees other than tuition cannot be refunded or held for subsequent quarters. Statements from employers or doctors may be required before requests for refunds or holds are processed.

### **OTHER FEES**

No laboratory, breakage or property damage fees will be charged to students. However, in case of breakage or damage due to gross negligence or maliciousness, a student will be expected to reimburse the institution. Academic credit and official transcripts may be withheld until proper payment is made.

## **FINANCIAL AID**

The purpose of financial aid is to provide financial assistance to students who would otherwise be unable to continue their education. The financial need of a student is determined by the resources available to him in relation to educational expenses.

Students applying for financial aid should complete and mail to the appropriate address the College Scholarship Service Financial Aid Form.

This form should be completed no later than May 1 preceding the academic year for which aid is requested. As financial aid awards are for only one academic year, students must reapply each year. Requests after May 1 will be processed as long as funds are available.

To be eligible for financial assistance a student must be enrolled or accepted for enrollment and demonstrate a need for financial aid. Financial assistance is available in a variety of forms to help students who meet the need criteria for eligibility. Scholarships, loans, grants, and work-study may be used singly or in combination to meet a student's total need.

Financial Aid brochures containing more detailed information are available in the Financial Aid Office.

**NOTE:** In order to continue participation in any of the following financial aid programs, a student must be enrolled at least half-time and maintain satisfactory progress, 2.00 grade point average. Students who do not have a 2.00 at the end of a quarter are placed on academic probation. Students on academic probation for two consecutive quarters would not be eligible to receive BEOG disbursements at the end of the second quarter. To reinstate eligibility you must have a 2.00 grade point average.

## **GRANTS**

### **Basic Education Opportunity Grant**

The Basic Education Opportunity Grant program is a Federal Aid program designed to provide financial assistance to those who need it to attend post-high school educational institutions. The awards, for a year, normally range between \$200 and \$788. Students may apply by completing the CSS Financial Aid Form or the Basic Education Opportunity Grant Application. Applications may be obtained at the Financial Aid Office. Students should allow six weeks for processing.

### **Supplemental Educational Opportunity Grant**

This program is funded by the Federal Government and is for students of exceptional financial need who, without a grant, would be unable to continue their education.

### **North Carolina Student Incentive Grant**

This program is designed for students of exceptional financial need who are North Carolina residents. Students applying for the NCSIG must do so before March 15.

## **WORK STUDY**

Work-Study is a federally supported program through which students primarily from low income families are given preference for part-time employment (up to 20 hours per week). Students must be enrolled at least half-time to apply for work-study and maintain a 2.00 grade point average.





## LOANS

The Financial Aid Office maintains a file on sources of financial aid for students. Loans at a low rate of interest are available through the following agencies:

- James E. and Mary Z. Byran Foundation
  - N.C. Insured Student Loan Program
  - N.C. Department of Human Resources — Nursing Loan
  - North Carolina Funds for Vocational and Technical Students
  - Sloan S. Sherrill Nursing Loan Fund
  - Winston-Salem Foundation\*
- \*Available to Forsyth County Residents only.

## N.C. INSURED STUDENT LOAN PROGRAM

Legal residents of North Carolina, who have been accepted for enrollment or are enrolled in good standing and maintain satisfactory progress, may borrow up to \$2,500 (\$3,000 if student is self-supporting) or one-half the estimated cost of education per year through College Foundation, Inc. Loans are insured by the State Education Assistance Authority and the U.S. Office of Education pays the 9 percent interest during the in-school and grace periods. Apply through the Institution's Financial Aid Office.

## N.C. Department of Human Resources (Educational Loan for 2nd year ADN Students)

North Carolina residents who are entering their second year of ADN may apply for a \$1,500.00 nursing loan. The loan is repaid by service in an approved medically underserved area of North Carolina. Students interested should contact the Financial Aid Office in November of 1981 to apply for the 1982-83 academic year.

## Sloan S. Sherrill Nursing Loan Fund

The Sherrill Nursing Loan is an interest free loan made through Forsyth Technical Institute for second year ADN students. For more information and applications, students should contact the Financial Aid Office by May preceding the academic year for which a loan is requested.

## SCHOLARSHIPS

The Winston-Salem Kiwanis and the Twin City Kiwanis Clubs award scholarships to seniors graduating from Forsyth County schools each year. The awarding of these scholarships is not controlled by the Institute.

The L. Carroll Lennon Scholarship Fund is donated by Read's Uniform Center, Inc. The award is given each year to a 1st and 2nd year Associate Degree Nursing student and a Practical Nurse Education student. Recipients for this award are referred by the Financial Aid Office.

The Norman Gaddis Scholarship is a perpetual scholarship available to a deserving, needy student and is sponsored by the Student Government Association.

The Marshall Paul Johnston Scholarship is a perpetual scholarship available to Automotive Mechanics students only.

The Jane Gaither Murray Scholarship is awarded annually to a deserving student entering the Associate Degree Nursing curriculum.

The Mary B. Lauerman Memorial Scholarship is awarded annually to an outstanding student entering the second year of Associate Degree Nursing.

The Sandra Johnson Memorial Scholarship is awarded annually to an outstanding student entering the second year of Executive Secretarial Science.

The Data Processing Management Association Scholarship is awarded annually to an outstanding student entering the second year of Electronic Data Processing.

The RJR Archer Scholarship is awarded annually to an outstanding student entering the second year of Manufacturing Engineering Technology.

The North Carolina Society of the American Association Respiratory Therapy Inc. Scholarship is awarded annually to one student in North Carolina entering the second year of Respiratory Therapy. Students who wish to apply should contact the Department Chairman for Respiratory Therapy.

The Henry F. Snyder Scholarship is primarily an emergency scholarship for students, eligible for financial aid, when funds are not available from other sources.

Other than the scholarships listed above, there are various individuals and organizations who contribute money yearly for scholarships for needy students. Most of the money available is not restricted; however, some of the scholarships are restricted to individuals enrolled in specific programs.

## OTHER SOURCES OF AID

There are other sources of aid for eligible students that are not administered by the Institute. Students interested in applying should do so with the appropriate agency. Both the Financial Aid and the Veterans Affairs Office can assist the students in making the initial contact with the sources listed below:

- Social Security Benefits
- North Carolina Veterans Affairs Scholarships
- North Carolina Vocational Rehabilitation
- North Carolina National Guard Tuition Assistance Plan
- Comprehensive Employment & Training Act (CETA)
- Dependency and Indemnity Compensation (VA)



## VETERANS AFFAIRS

The Institute is approved for the training of persons eligible for benefits administered by the Veterans Administration.

The Admissions Office will help applicants select a program of study and explain the procedures for enrolling in the Institute. All admission requirements must be completed before veterans paperwork can be initiated. Admissions will require application forms, testing and the receipt and evaluation of transcripts for all prior training.

Once the admissions procedures are completed, the eligible person should contact the Veterans Affairs Office to begin veterans benefits processing. The actual enrollment certification and related documents will not be submitted to the VA Regional Office until the new student registers for classes.

### Hours and Pay

Veterans benefits payments are issued monthly and are based on training for a prescribed number of hours.

Enrollees in two year Technical programs are classified according to the number of quarter hours per quarter:

Full-time	12 or more quarter hours
3/4 time	9-11 quarter hours
1/2 time	6-8 quarter hours

Enrollees in one year Vocational programs are classified according to the number of weekly contact hours per quarter:

Full-time	a minimum of 22 contact hours
3/4 time	a minimum of 16 contact hours
1/2 time	a minimum of 11 contact hours

### Standards of Progress

Federal regulations require that students receiving veterans benefits must maintain standards of academic progress and conduct.

### Satisfactory Academic Progress

The Academic Standing section of this catalog describes the basic academic requirements for all students. A 2.0 cumulative grade point average must be maintained and a probationary period of not more than one quarter is permitted. Progress is reviewed on a quarterly basis and performance in the major subject areas and preparatory/refreshers classes are considered as well. Inability to meet required standards in these classes will be part of academic progress evaluation by the Academic Review Committee. (Refer to catalog sections dealing with Academic Standing, the grading system and the preparatory courses).

If a veteran or eligible person is classified as making unsatisfactory progress, a report will be submitted to the Veterans Administration and benefits will be terminated. Termination will take place effective with the posting of grades at the end of the probationary quarter. Specific steps must be taken before payments may resume. Re-certification to the Veterans Administration will be determined by the results of the Academic Review Committee. The conditions under which the student has been allowed to continue or re-enter enrollment will be specified on the certification and the Veterans Administration will be able to determine whether or not that student shall receive any further benefits.

In the case of actual dismissal from school, readmission procedures as described in the Readmission section of the catalog will also apply.



### Satisfactory Conduct

Conduct in accordance with the section on Student Conduct is expected of all students. Dismissal of veterans or eligible persons for unsatisfactory conduct will be reported to the Veterans Administration and benefits will be terminated.

### Attendance

All students are expected to maintain satisfactory attendance as defined in the section on Attendance. Eligible persons dropped from classes for non-attendance, poor attendance, or who withdraw, will be terminated or have their hours reduced effective with the last day present in class. Unless mitigating circumstances are involved, the Veterans Administration may determine this termination or reduction to be on overpayment retroactive to the beginning of the quarter.

### Punitive/Non-Punitive Grades

Federal regulations prohibit payment for grades that do not count as progress toward graduation. Audits are not payable. A grade of WF is punitive because it counts as an F in grade point average computations. A grade of W or WP is non-punitive. If an eligible person receives a grade which reduces their training time, a report is submitted to the Veterans Administration. In the case of punitive grades, the effective date of adjustment is the last day present in class. In the case of non-punitive grades, the effective dates of adjustment will be an overpayment retroactive to the beginning of the quarter unless mitigating circumstances are involved.

### Counseling Services and Other Information

Contact the Veterans Affairs Office concerning availability of counseling services, or come directly to the Counseling Center in the Office of Student Services.

Questions concerning Standards of Progress/Conduct should be directed to the Veterans Affairs Office.

Questions concerning eligibility, enrollment, curriculum changes, withdrawals, attendance, pay problems or information in general should be directed to the Veterans Affairs Office.

There is a Veterans Information booklet available which contains more detailed information concerning the various requirements for receipt of benefit payments.



## ORGANIZATIONS AND ACTIVITIES

### STUDENT GOVERNMENT ASSOCIATION

The Student Government Association serves to promote interest in student affairs both on and off campus. The Association is composed of representatives elected from each curriculum by the students of that curriculum. Student Government officers are elected by the student body. Faculty or staff members are appointed by the administration to serve in an advisory capacity to the Student Government Association.

### STUDENT REPRESENTATION ON BOARDS AND COMMITTEES

The President of the Student Government Association is a non-voting member of the Board of Trustees of the Institute. Student representatives also serve on the Student Appeals Committee, the Graduation Committee, and other committees concerned with students.

### CIRCLE K

The Circle K is a national collegiate service club sponsored by Kiwanis International. The club is open to male and female students who are invited to membership at intervals during the year.

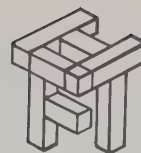
### SOCIETY OF ENGINEERING TECHNOLOGY STUDENTS

The Society of Engineering Technology Students is a service and social club open to students from the Manufacturing Engineering, and Drafting and Design Engineering Technology programs. This club, in its first year of existence, has raised and set aside funds for endowing a scholarship open to second quarter students in these two fields of technology.

### LAW ENFORCEMENT ADMINISTRATION SOCIETY (LEAS)

Membership in LEAS is open to both male and female students who are, or have been, enrolled in a course of study in the areas of the Administration of Criminal Justice.

The objectives of the organization are to promote public understanding of the problems and objectives in the areas of the administration of criminal justice and to elevate the standards and foster greater understanding between the agencies and departments in all areas of the administration of criminal justice.



### OTHER ORGANIZATIONS

Students are encouraged to affiliate with student chapters of various professional and technical organizations and societies.

### ATHLETICS

The Institute does not offer a formal, organized athletic program. The students themselves have organized basketball, softball and bowling teams and compete in Winston-Salem city leagues in these sports. Volunteers from the faculty serve as sponsors and coaches of the teams.

### STUDENT PUBLICATIONS

Students are encouraged to participate actively in the preparation of the F.T.I. **Reporter** and **Reflector**, the two major student publications.

The **F.T.I. Reporter** is the student newspaper written, edited and managed by the student staff with the assistance of a faculty advisor.

The **Reflector**, the yearbook of the Institute, is written, edited and managed by the student yearbook staff with the assistance of a faculty advisor.





## OTHER STUDENT SERVICES

### GUIDANCE AND COUNSELING SERVICE

The Office of Student Services maintains a staff of trained counselors whose services are available to students needing help with educational, vocational, financial, or personal problems.

Each full-time student at the Institute is assigned a faculty advisor who is available for help with problems related to the student's course work. The Advisor serves as a direct link between the student and the administrative staff of the Institute.

Several individualized special tests and inventories are available for counseling purposes through the Office of Student Services. Both students and faculty members may obtain information on their availability and value by contacting the Counseling Center.

The Adult Career Guidance Center is a full service career center available to all students and applicants. Among the wide range of services available are career counseling, resume information, aptitude and interest testing, and job placement information.

### HOUSING

Since the Institute has no dormitory facilities, students who wish to live away from home must make their own housing arrangements. The Institute takes no responsibility for locating or supervising student housing; however, suggestions as to location of off-campus housing may be obtained in the Office of Student Services.

### HEALTH SERVICES

Limited health services are provided through the Office of Student Services and first-aid supplies located in shop areas; however, injuries requiring more than minor first-aid treatment will be treated in the emergency room of a nearby hospital.

For major illness or injury, ambulance transportation is available to either of the two hospitals, both of which are located within two miles of the Institute.

### ACCIDENT INSURANCE

Accident insurance covering the hours a student is in school, on field trips, or participating in student activities, is provided to all full-time and part-time curriculum students. This student insurance is furnished by the Institute as a service to students, but it is not meant to replace a student's personal coverage.

### HOSPITALIZATION INSURANCE

All full-time students below age 26 are eligible to obtain Blue Cross-Blue Shield Group Insurance at special student rates.

Provisions for this are made through individual contact of the student and Blue Cross-Blue Shield Insurance Co.

### LIABILITY INSURANCE FOR HEALTH STUDENTS

All health students must purchase liability insurance before they will be permitted to enter the hospitals for clinical practice. The cost of the insurance may range from \$11.00 to \$30.00 depending on the insurance carrier and must be purchased at the beginning of the Fall Quarter or whenever a student enters or re-enters a health program.

## FOOD SERVICE

Canteen service is available in the Student Center which is located on the ground level of Snyder Hall. A variety of hot and cold foods and drinks is available.

Canteen service is available at both the student lounge in the Allied Health Building and the student lounge in the Paramedical Building, Forsyth Memorial Hospital.

## STUDENT CENTERS

A large, attractive Student Center is located on the ground level of Snyder Hall. Students are encouraged to use the Center as a place in which to meet, chat, eat and relax. A study lounge is also available near the Bookstore for a quiet place to study.

Student lounges are also available to students in the health programs in the Allied Health Building and in the Paramedical Building, Forsyth Memorial Hospital.

## LIBRARY

### Main Campus

The library is located in the Administration Building and contains reference and circulatory books which are available to all citizens in the area. Additional holdings are being acquired at the rate of approximately 2,500 volumes per year. Also housed in the library are special audio-visual media as slides, films, filmstrips, tapes, records and micro-film. These media are constantly being added to the library collection and lend greater variety to available sources of information.

The library is open Monday through Thursday from 7:30 a.m. to 8:30 p.m. and on Friday from 7:30 a.m. until 4:30 p.m.

### Forsyth Memorial Hospital

Students have access to the library in the Forsyth Memorial Hospital Paramedical Building which is open from 8:00 a.m. to 5:00 p.m. Monday through Friday.

### Allied Health Building

Students have access to the library which is on the first floor of the Allied Health Building and is open Monday through Thursday from 8:00 a.m. to 9:00 p.m. and on Friday from 8:00 a.m. to 5:00 p.m.

Library cards are given out to new students during Library Orientation. Should cards be lost, there is a \$3.00 replacement fee. Each student is responsible for materials checked out on his card. Overdue fines are imposed on regular books, however, there is a 50 cents an hour fine (up to the cost of the book) on reserve books checked out overnight and due in one hour after the Library opens.

The student is responsible for replacing books that are lost or damaged. Until such replacement is made, library privileges will be revoked and grades may be withheld.

## BOOKSTORE

A school bookstore is operated by the Institute as a service to students, faculty and staff. Textbooks, school supplies and course-related materials, as well as other items of special interest to students, are offered for sale. The bookstore is adjacent to the Student Center in Snyder Hall and is open Monday through Friday from 9:00 a.m. to 3:00 p.m. and on Monday, Tuesday, and Thursday evenings from 6 p.m. until 8:00 p.m.

Summer quarter evening hours will be posted at Bookstore.



## LOST AND FOUND SERVICE

Lost and found articles will be handled at the Reception Desk in the Parkway Building on the main campus, the Counselor's Office at the Allied Health Building and the Department Chairman's Office at Forsyth Memorial Hospital.

## INDIVIDUALIZED LEARNING CENTER

The Individualized Learning Center offers courses for adult enrichment, adult high school, and regular curriculum courses. The Learning Center is also used by persons preparing for the high school diploma equivalency test and for college entrance tests such as the CGP. Students in the Learning Center use programmed, self-instructional books, audio-visual materials and have access to a coordinator for personal help. Experience has shown that motivated, self-disciplined adults learn well using this approach.

The Learning Center also offers supplemental work for various curriculum courses such as mathematics and English. A computer terminal provides access to computer assisted instruction in tutorial form as well as simulation games. Students may enroll at any time, and there is no cost except for credit courses. Students must be enrolled at Forsyth Tech in order to take curriculum courses for credit.

In addition to the learning center on campus, several off-campus learning centers are located in public libraries, churches, and various other locations. Enrollment in these learning centers is free.

## HIGH SCHOOL EQUIVALENCY

Adult residents of North Carolina who have not completed high school may earn a High School Diploma Equivalency by passing a battery of five tests. These tests are known alternately as the high school diploma equivalency tests and Tests of General Educational Development.

The GED program is designed primarily for adults 18 years of age or older; however, 16 and 17 year olds are allowed to take the tests if they meet certain conditions. It is the policy of Forsyth Tech to encourage young people to complete regular high school before seeking admission. Current residency in North Carolina is required.

A High School Diploma Equivalency is recognized across the nation by most employers and educational institutions and is issued by the North Carolina Department of Community Colleges. Forsyth Tech is one of 71 official GED testing centers in the state and is the only one in Forsyth County.

Persons interested in further information or in taking the GED tests should contact the Institute's Individualized Learning Center. The center administers the tests by appointment. There is a \$5.00 fee for taking the GED test.

## CHANGES IN REGULATIONS

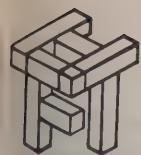
The provisions of this publication are not to be regarded as an irrevocable contract between the student and Forsyth Technical Institute. The Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedures as deemed necessary. The Institute further reserves the right, at any time, to request the student to withdraw when it considers such action to be in the best interest of the institution.











## **ADULT CONTINUING EDUCATION**



## ADMISSIONS REQUIREMENTS

All persons who take Continuing Education courses must be 18 years of age or older. However, selected high school juniors and seniors may enroll provided they have approval from their high school principal and Forsyth Technical Institute's Admissions Office. Enrollees should have completed the 10th grade in order to take Continuing Education courses other than Adult Basic Education and Adult High School courses.

## ADULT CONTINUING EDUCATION

The Continuing Education Division of Forsyth Technical Institute provides appropriate, economical and convenient learning opportunities for those citizens who are 18 years of age or older, whether or not they are high school graduates. The opportunities are based on individual need and previous educational achievement. They range from the first grade level through high school and extend into vocational, technical and general adult continuing education and training to all of suitable age who wish to learn and can benefit from the instruction provided.

The Continuing Education Division provides a balanced educational program that encompasses a wide variety of course offerings that will meet the educational needs of employed and unemployed adults. The specific areas include Adult Basic Education, High School Diploma Program, Occupational Extension, New and Expanding Industry, Management Development Training, Academic Extension, and General Adult Enrichment Extension. New programs and/or courses are periodically developed when needs become apparent.

The primary goal of the Adult Continuing Education Division is to provide quality adult continuing education courses at convenient locations for the citizens of Forsyth and Stokes counties.

The general program objectives are:

1. To provide expanded educational opportunities for those adults who would not otherwise continue their education.
2. To provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts and adults.
3. To provide programs of vocational/technical education for employed and unemployed adults who need training or re-training, or who can otherwise benefit from the program.
4. To provide short courses that will meet the general adult and community service needs of the people of the community.
5. To provide requested vocational and technical training programs for new and expanding industry in the Forsyth Tech service area.

## GENERAL INFORMATION

Continuing Education courses are scheduled quarterly. Pre-registration is required for all Continuing Education courses and programs. Pre-registration can be accomplished by calling or coming by the Continuing Education Office. Official registration takes place at the first class meeting. Registration is accomplished by completing the necessary registration forms and paying the required registration fee. The Registrar's Office keeps an official record of each student enrolled in Continuing Education. Continuing Education courses are offered throughout Forsyth and Stokes counties at many different locations. Only approximately 35 percent of Continuing Education courses are taught on the Forsyth Technical Institute campus. Many courses meet during the day and evening hours; however, approximately 90 percent of Continuing Education courses meet during the evening hours and Saturday morning.

## COST

A \$5.00 registration fee is required for all Continuing Education courses except the Adult Basic Education Program. Professional fireman, volunteer fireman, rescue squad members, persons employed by local Law Enforcement and persons age 65 or older are exempt from paying the registration fee.

## CREDITS

Most Continuing Education courses that meet for 10 or more contact hours are approved for Continuing Education Units. C.E.U. credit is based upon the number of hours a course is scheduled to meet. One C.E.U. is awarded for every 10 hours a person attends class and a portion thereof. (For example, a course that meets for 22 hours awards 2.2 C.E.U.'s.) Persons who complete the Management Development Training Program receive a diploma. A high school diploma is awarded to those persons who successfully complete the Adult High School Diploma Program.

## OCCUPATIONAL EXTENSION PROGRAMS

The Occupational Extension courses and programs are designed to provide an opportunity for working adults to gain or to improve vocational-technical skills during the day or evening. The program also serves the business and industrial community by upgrading the skills of the community's adult population.

The Occupational Extension Programs include:

1. **Management Development Training**—designed to train and upgrade supervisors, potential supervisors, small business owners, and management trainees in business and industry.
2. **Vocational-Technical Courses**—designed to upgrade skills and knowledge in certain occupational and technical areas. These courses also provide many adults with an opportunity to gain new skills.
3. **Fire Service Training**—designed to provide practical training in all areas of fire fighting; to assist new volunteer fire departments in training personnel; and to provide upgrade training for the personnel of existing volunteer fire departments.
4. **Seminars and Workshops**—developed for the purpose of providing specialized training for particular groups.
5. **Law Enforcement Training**—designed to train personnel in basic law enforcement and to provide upgrade training for persons who are currently employed in the profession.
6. **New and Expanding Industry Training Program**—designed to train individuals in specific skill areas for jobs created by new and expanding industries.
7. **Health Related Training Program**—designed to provide upgrade training to persons who are employed in health professions, and to prepare persons to become employed in the health related area.



## MANAGEMENT DEVELOPMENT TRAINING

Management Development Training is an educational program designed to upgrade the competency of supervisory and mid-management personnel in business and industry. Classes are scheduled in accordance with the needs of industry.

Supervisors or potential supervisors may qualify for an MDT Diploma by completing 16 courses. For supervisors pursuing the MDT Diploma, it is suggested that this program be planned to cover a two-year period. Most of the courses are taught during evening hours and occasionally on Saturday mornings.

Applicants for this program should presently be a supervisor or have ambitions to become a supervisor. There are no pre-requisites for entry into the program. There are four required courses and most courses are scheduled to meet one night per week for eleven (11) weeks.

The cost of the program is \$5.00 per course. There is no charge to persons who are 65 or older.

The Management Development Training Program includes such courses as:

Absenteeism and Turnover Reduction	Introduction to Data Processing
Alcoholism and Drug Abuse in Business and Industry	Job Evaluation and Interviewing Techniques
Art of Motivating and Leading People	Laws Affecting the Business Organization
Basic Math	Management by Objectives
Conference Leadership	Managing Time and Performance Evaluation
Economics in Business and Industry	Personnel Management
Effective Communications	Principles of Management
Effective Speaking	Principles of Supervision
Effective Writing	Problem Solving and Decision Making
Energy Conservation	Speed Reading
Management	Techniques of Guidance and Counseling
How to Instruct Employees	Time and Motion Study
Human Relations	Transactional Analysis
Industrial Safety and Accident Prevention	

Listed below are course descriptions for some of the more popular Management Development training courses:

**Art of Motivating and Leading People**—Emphasis is placed on specific problems in the area of motivation. The course should provide self-evaluation for those attempting to motivate others. This course is also designed to acquaint people with some of the techniques of leadership and to develop in them some understanding and appreciation of why people do what they do and how they develop attitudes about their jobs, their employers, and their supervisors.

**Conference Leadership**—This course is designed to train supervisors in the techniques and procedures of handling a group of people in solving ideas for solving their collective and individual problems.

**Introduction to Data Processing**—A course designed to introduce the student to basic terminology, concepts, and principles of business data processing and programming. Emphasis will be placed on basic facts as the student should master in preparation for learning a programming language.



**Principles of Management**—The course involves the definition, function, history, purpose, and scope of management. Also covered in the class will be schools of thought in administration and management, the management process (planning, organizing, staffing, directing, controlling, coordinating, and decision making), tools of administration (authority and communication), and administrative responsibility.

**Principles of Supervision**—The course is designed for the person who is in a supervisory capacity. Subjects covered will include: fundamentals of supervision, relationships on the job, communications, training workers, performance evaluation, grievances and discipline, absenteeism, job management, managing time, encouraging self-improvement, human relations, and motivation.

**Speed Reading**—This course is designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition, and to train for comprehension in larger units.



## VOCATIONAL-TECHNICAL COURSES

Courses in this program are occupationally oriented, providing adults with the opportunity to upgrade skills and knowledge in certain vocational and technical areas. This program includes upgrade training in such areas as drafting, health occupations, fire service training, and welding. It also gives the regular curriculum graduates of the Institute an opportunity to participate in a Continuing Education Program after entering the world of work.

**COST:** \$5.00 registration fee per course. Persons 65 years of age and older are exempt from paying the registration fee.

**TIME:** Generally, classes are conducted one or two evenings per week (Monday through Thursday and Saturday mornings) for a period of eleven (11) weeks.

The following is a brief list of courses which have been offered in the past, and may be offered in the future.

Air Conditioning Service I	Industrial Safety & Accident Prevention
Algebra	Introduction to Fire Protection Hazards
Arc Welding Processes	Introduction to Nuclear Pipe Welding
Auto Body Repair	Machine Shop Practices
Auto Tune-Up	Machinist Apprenticeship
Basic Computer Logic	Major Home Appliance Repair & Servicing
Basic Electronics	Mechanical Drafting & Sketching
Blueprint Reading & Measuring Instruments	Numerical Control Milling
Digital Basics for Electronic Servicing I	Machine Applications
Electrical Apprenticeship	Offset Printing
Electrical Installation & Repairs	Oil & Gas Burner Service
Energy Conservation	Real Estate Exam Pre., Brokers
FCC Radiotelephone Operator's License Pre. I & II	Residential Wiring
Fundamentals of Solid State Color Television Circuitry	Small Engine Repair
House Plan Drawing & Planning	Technical Mathematics
Hydraulics & Pneumatics	Technical Report Writing
	Woodworking

The following are course descriptions of some of the more popular vocational-technical extension courses:

**Arc Welding Processes**—A special arc welding course to include shielded metal arc welding ("Stick"); tungsten inert gas welding ("Tig"); and metal arc inert gas welding ("Mig").

**Auto Body Repair I**—This course is an introduction to: the history of automobile construction, body repair, hand tools, molding fasteners, and minor sheet metal repair procedures. No pre-requisites.

**Auto Tune-Up**—This is a course designed for the car owner who would like to be able to perform a minor engine tune-up without having to invest a lot of money for testing equipment. This course will cover basic fundamentals of engine operation with emphasis placed on items such as distributors, ignition timing, carburetors, and many smaller items that assure a good engine tune-up.

**Basic Electronics I**—The course will define basic units, volts, amperes, ohms, etc. It will investigate mathematical relationships as applied to electrical units. Ohm's law will be thoroughly covered. Electro-magnetics and the operation of relays, motors, and generators

(both AC and DC) will be discussed. Students will be introduced to electron theory and briefly how electron tubes and solid state devices operate. Students will be shown how to use basic electrical/electronic measurement devices. No pre-requisites.

**Blueprint Reading and Measuring Instruments**—This course includes visualization and interpretation of machinists blueprints along with using micrometers, calipers, and other measuring instruments. During each class meeting, two hours will be devoted to blueprint reading and one hour to measuring instruments.

**Digital Basics for Electronic Servicing I**—This course will cover the type of components used extensively in control circuits and computer applications. It will start with the basics of binary numbers and progress through the development and application of micro-processors. The complete course will consist of two quarters. This is the first of two courses. Pre-requisite: A good working knowledge of solid state components or one year of electronic schooling.

**Electrical Apprenticeship I, II, III, and IV**—This is a preparatory apprenticeship program directed toward persons interested in becoming Journeyman Electricians. The program consists of four years of training with 144 hours of instruction per year. Co-sponsored by the Apprenticeship Committee—Electricians of Winston-Salem.

**Machine Shop Practices I**—Basic Machine Shop Practices will include the following: introduction to machine tools (drill press, lathe, milling machine, shaper, grinders, etc.), care and use of basic hand tools and measuring instruments, elementary layout and processes on lathe, drill press, and off hand grinding of tools. Safety glasses required.

**Major Home Appliance Repair I**—This course is designed to familiarize persons with the proper operation of refrigerators, ranges, dishwashers, washers, and freezers. Class participants will be trained in troubleshooting techniques and repair which will involve the use of meters and circuit diagrams for each of the appliances mentioned above. Safety glasses required.

**Mechanical Drafting & Sketching I**—Instruction will include: language of drawing, projections (orthographic, isometric, oblique), alphabet of lines, dimensioning and lettering, freehand sketching, and instrument drawing techniques.

**Oil & Gas Burner Service**—Oil and Gas Burner Service covers the following: oil burner fundamentals; operation, control and service of burner systems; installing and servicing electric heating elements and their controls; principles of operating, installing and servicing hot water and low pressure systems. Safety glasses required.

**Real Estate Exam Prep., Brokers**—This course is designed to prepare applicants for the North Carolina Licensing Exam for Real Estate Salesmen and Brokers. The course will cover real estate fundamentals, law, appraising, brokerage, finance and closing procedures.

**Residential Wiring**—There will be lectures and demonstrations pertaining to methods and procedures in: installing lights and switch wiring baseboard outlets; replacing and repairing wall switches; wiring for window sill conditioners, dishwashers, and dryers. The student will participate through practical application. Safety glasses are required.

**Small Engine Repair**—This course deals with the repair and maintenance of small gasoline engines. Safety glasses required.



**Welding, Introduction to Nuclear Pipe**—This course is for the person who has a solid background in Tungsten Arc, Inert Gas Welding, and Shielded Metal Arc Welding in all positions. A study will be made of: Section III of the Nuclear Welding Code, positions 5G, 1G, and 6G; pipe leveling methods and joint preparation; x-ray film and causes of weld defects; purging methods for carbon steel and chrome-moly steel's heat numbers; and records of nuclear materials. Students must have Introduction to Pipe Welding. Safety glasses required.

### FIRE SERVICE TRAINING

Fire Service Training is designed to provide practical training in areas of fire prevention and fire fighting. Courses are offered primarily to new volunteer fire department personnel. Upgrade training courses are provided for personnel who are already volunteers participating in fire departments and for professional fire-fighters who are employed by the City of Winston-Salem. Fire Training Service courses are provided to professional and volunteer firemen free of charge.

A partial listing of the Fire Service Training courses are listed below:

Fire Apparatus Procedures	Forcible Entry
Fire Behavior and Portable	Hose Practices
Fire Extinguishers	Ladder Practices
Fire Stream Practices	Rescue Practices
Firefighting Procedures	Ventilation

The following are course descriptions of some of the more popular courses:

**Fire Stream Practices**—This course aids in developing skills in fire stream practices so that the firefighter can demonstrate proficiency in their use. The scope of instruction covers the various phases of fire stream practices in a sequential order and is adaptable to the local fire department situation.

**Firefighting Procedures**—The purpose of this instruction is to present accepted firefighting procedures that can be adapted to local situations. Classes cover the phases of firefighter procedures and selected topics of fire prevention and inspection in a sequential order. Procedures and plans learned make teamwork out of individual efforts so that a coordinated attack can be made on a fire.

**Hose Practices**—The purpose of this class is to present accepted hose practices that can be adapted to various situations. The care and use of the fire hose is learned. Its application and use with other firefighting equipment places the hose in the category of essential tools of fire extinguishment.

**Rescue Practices**—The objective of this course is to develop the firefighter's knowledge and skills in basic rescue practices. The student learns about finding, extricating and transporting victims at the scene in a variety of disasters. Special topics include rescue involving high rise buildings, water craft, specialized industry and mountainous terrain.

### SEMINARS AND WORKSHOPS

Seminars and Workshops are developed for the purpose of providing specialized training and educational programs for specific groups of various organizations. Seminars and Workshops have been conducted in the areas of: Hotel-Motel Management, Energy Conservation, Cosmetology, Occupational Safety and Health, and Visual Emission Control.

### LAW ENFORCEMENT TRAINING

The primary thrust in law enforcement education has been through the Basic Police School offered to Forsyth County Sheriff's officers and departments from other counties. In 1978 the school's total instructional hours changed from 160 to 240 hours. In addition to the Basic School, several other kinds of training have been arranged for the County through the area law enforcement coordinator, an advisory committee, and the occupational extension office.

A partial listing of classes are listed below:

Basic Fingerprinting	Introduction to Explosives &
Drug Identification and Classification	Explosives Identification
Jail and Detention Services	Rights and Liabilities of Law Enforcement Officers

**COST:** Those persons who are employed in local law enforcement agencies are exempt from paying registration fees.

**TIME:** Generally, classes meet one or two evenings per week for eleven (11) weeks.

Course descriptions for some of the Law Enforcement Training courses are as follows:

**Basic Police School**—The expanded 240-hour curriculum includes thirty-five law enforcement topics. It is a mandatory minimum standard for basic police training in North Carolina. It is designed to provide the newly-employed law enforcement officer with the basic job knowledge, skills, and abilities to perform entry-level police work. The material includes constitutional law, the North Carolina Criminal and Motor Vehicle Law, traffic accident investigation and reporting, basic laws of arrest, search and seizure, evidence, patrol operation, firearms, and defensive tactics.

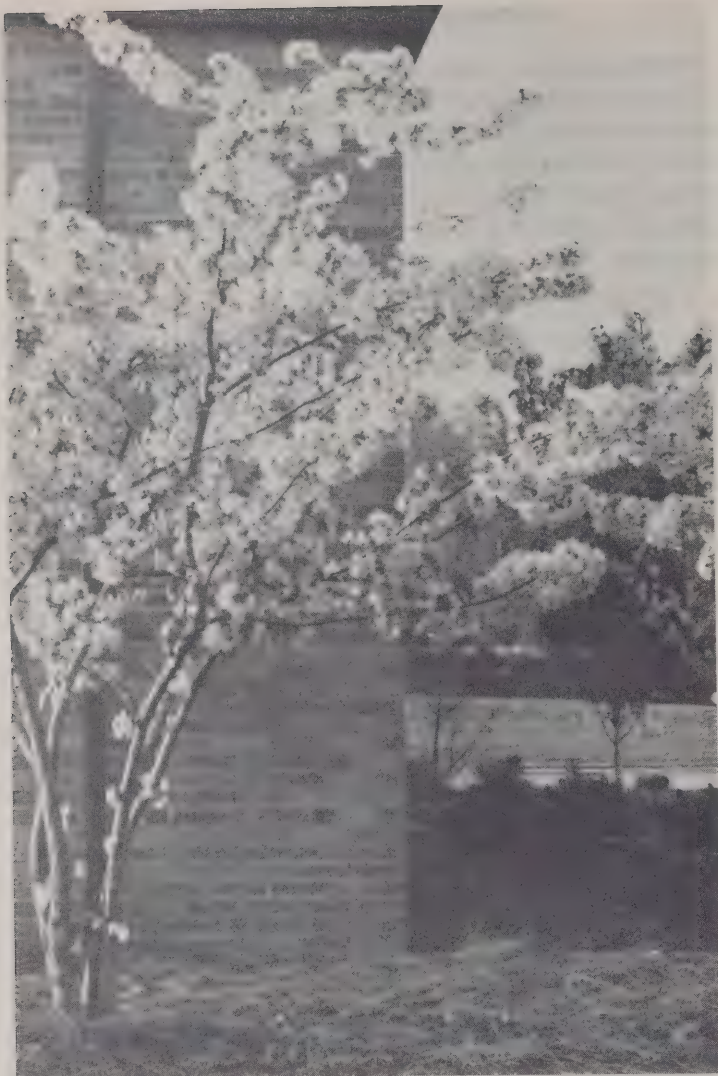
**Drug Identification and Classification**—The purpose of this course is to facilitate an understanding of the types of cases generated by enforcement of drug laws, and the role the patrol officer will play in these cases. An identification and classification of the more commonly abused controlled substance is made. Instruction presents the proper procedure for the processing of drug evidence.

**Introduction to Explosives and Explosives Identification Tagging**—The purpose of this course is to present the student with information concerning the history, development, and use of various types of explosives and incendiary devices; and to familiarize the student with safe procedures utilized in searching premises for explosive or incendiary devices.

**Basic Fingerprinting**—In this course the student will learn the proper techniques of obtaining and recognizing a legible set of inked impressions; proper submission of fingerprint documents; and the value that submission of these documents hold in the Criminal Justice System. Upon completion of the class the student will be able to perform all fingerprint submissions for investigative purposes.

**Rights and Liabilities of Law Enforcement Officers and Agencies**—The course is designed to inform the law enforcement officer about those activities he performs which might expose both the officer and his agency to a civil suit for damages or, in the extreme cases, to criminal action. The course covers such subjects as insufficient supervision and training of officers, intelligence gathering, forcible entries, use of firearms, choice of ammunition, vehicle related liability during emergencies and use of handcuffs.





## NEW AND EXPANDING INDUSTRY TRAINING

The Continuing Education Division participates in the creation of more challenging and rewarding jobs for the citizens in our community by providing a customized training service to new or expanding industries. In cooperation with the Industrial Services Division of the Department of Community Colleges, Forsyth Tech will design and administer a special program for training the production manpower required by any new or expanding industry. The purpose of the program is to assist these industries in meeting their immediate manpower needs and in developing long range training programs of their own to satisfy their continuing replacement and retraining needs.

This program includes the following services:

1. Consultation in determining job descriptions; defining areas of training; and prescribing appropriate course outlines, training schedules and materials.
2. Selection and training of instructors and providing instructional services for the duration of the training program.
3. Providing suitable space for a temporary training facility (prior to the completion of the new plant) including the installation costs of equipment in the temporary training facility.

All persons who participate in New and Expanding Industry Training courses are required to pay a \$5.00 registration fee.

## HEALTH-RELATED TRAINING PROGRAM

Health-Related Training is designed to provide upgrade training persons in health professions and to assist persons in preparing themselves to become experienced in health-related areas. This training provides the student with entry level job skills.

The courses are designed to upgrade as well as update knowledge and skills in specific areas. Courses are also offered to provide training for professionals who have not practiced in several years, enabling them to re-enter their profession with competence.

**COST:** \$5.00 registration fee per course. (Not required of persons 65 or older.) Students must furnish their own textbooks and uniforms if required.

**TIME:** Generally, classes meet one or two nights per week for eleven (11) weeks.

**NOTE:** All courses for nurses are CEAP and CERP approved.

Below is a partial listing of the Health-Related Training Program:

Activity Coordinator Training	Legal Aspects of Nursing
Advanced First Aid	L.P.N. Refresher
Beyond Separation & Divorce	Marriage & The Family
Communication Skills for Couples	Medical Machine Transcription
Coping Skills for Parents of Mentally Handicapped Children	Medical Terminology
Cardio-pulmonary Resuscitation	Nursing Assistant
Death & Dying	Nutrition & Weight Loss
Electrocardiology	Pharmacology of Aging
Emergency Medical Technician	Respiratory & Hemodynamic Monitoring
Fluid & Electrolyte Balance	R.N. Refresher
General Nutrition	Standard First Aid
Geriatric Nursing	Stress Management
Homemaker-Home Health Aid	Techniques for Performing a Physical Examination
Human Relations for Nurses	The Blended Family
Insight Into Dealing with the Cancer Patient	Unit Secretary
Instructor's Course in CPR	Venipuncture Program
I.V. Therapy	Weight Control Through Habit Not Diet

Listed below are course descriptions for some of the more popular Health-Related Training Courses:

**CPR & Advanced First Aid**—This course is designed for those persons who wish to expand their knowledge of first aid, such as fire rescue squad and emergency personnel. Upon satisfactory completion of the course, the student will be awarded an American Red Cross Advanced First Aid and Emergency Care Certificate. The student will be certified in CPR by the American Heart Association. Standard First Aid is no pre-requisite for this class.

**Emergency Medical Technician**—The purpose of this course is to prepare professional and volunteer EMT personnel to take the state examination for certification. It is jointly sponsored by Forsyth Tech and the North Carolina Office of Emergency Medical Services. The course is approximately 96 hours in length including both classroom and lab instruction.

**Homemaker-Home Health Aid**—This course provides training in the skills necessary to assist the home-bound individual with personal hygiene, companionship, and provision of a safe and clean environment.



ment. The psychological aspects of aging will be a major emphasis throughout the course.

**L.P.N. Refresher**—This course is designed to prepare the L.P.N. who has been out of nursing for a number of years to go back to work with the necessary skills. There is a total of 90 classroom hours and 90 clinical training hours. The main areas of instruction will include general medical and surgical nursing, experience with the functions of the L.P.N., and the L.P.N.'s relationship to the health team.

**Medical Machine Transcriptions**—The purpose of this course is to enable the student to develop skills in operating the transcribing machine; improve proficiency in word usage and correct punctuation; use words and phrases commonly used in medicine, surgery, radiology, and pathology; review medical terminology and vocabulary including homonyms, prefixes, and suffixes; transcribe medical dictation (consisting of letters, case histories, and physical examinations) directly from the machine onto final, typewritten mailable and permanent forms.

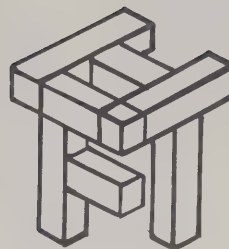
**Medical Terminology**—Students taking this course will acquire a working knowledge of terms encountered in medicine. The course will also orient the student to the use of reference books dealing with medical terminology.

**Nursing Assistant**—The purpose of this course is to provide those who are genuinely interested in patient care with the opportunity to acquire a basic understanding of the principles involved; and to develop skills necessary to assist the nurse in providing safe, efficient, and effective patient care. There is an introduction to basic scientific principles, the structure and function of the human body, and the changes which illness and aging produce. Approximately one-third of the course time is spent working in the hospital. The clinical time gives the student the opportunity to relate to patients and their families, to develop skills in performing nursing procedures, and become a functioning part of the nursing team.

**R.N. Refresher**—This course is designed to prepare the R.N. who has been out of nursing for several years to return to work. The course includes general medical and surgical nursing, new equipment, procedures, charting, documentation, medications, I.V. Therapy, and physician's orders. Students will be allowed to perform patient care under the direct supervision of the instructor.

**Unit Secretary**—This course is designed to prepare a person to work as a unit secretary in either a hospital or nursing home. The student is trained to keep and maintain clerical items and up-to-date records of patient procedures in a readable and usable form for doctors and nurses to perform patient treatments. Some of the areas covered include: medical and drug terminology, scheduling surgery and special procedures, telephone techniques, receptionist duties, and the intercom.

**Venipuncture Technician**—This program is designed to train students to collect lab specimens for analysis. The program consists of two eleven-week sessions of instruction. During the first eleven weeks, the student will receive classroom instruction in Anatomy & Physiology and Human Relations. The second eleven-week period provides classroom instruction in Principles and Practice of Specimen Collection and Medical Communication Skills. During this session the student will also be involved in clinical training. Upon successful completion of both the classroom and clinical instruction, the student will be awarded an appropriate certificate.





## GENERAL ADULT ENRICHMENT PROGRAM

The General Adult Enrichment Program is designed to meet the avocational needs of individuals in the community. Individuals have an opportunity to broaden their educational base by taking courses tailored to their personal interest, growth and development. The various courses are offered during the day and evening hours. Although the courses are avocational in nature, some students find the courses beneficial in their specific occupations.

**COST:** \$5.00 Registration Fee (Not required of persons 65 or older). Students must furnish their own textbooks and supplies.

**TIME:** Generally, classes meet one or two evenings or days per week for eleven (11) weeks.

Below is a partial listing of the courses in the General Adult Enrichment Program:

Acrylic Painting	Needle Art
Antiques	Oil Painting
Bread Baking	Pine Needle Crafts
Cake Decorating	Portraits (Charcoal, Pastel, Oil)
Calligraphy	Quilt Making
Ceramics	Sewing, Clothing Construction I
Chair Caning	Sewing, Clothing Construction II
Crafts (Christmas, Holiday)	Sewing, Advanced (Fitting)
Crocheting	Sewing, Drapery Making
Decorative Art	Sewing, Men's & Ladies' Jackets
Decoupage	Sewing, Pattern Drafting
Flower Arranging	Sewing, Stretch Knits & Lingerie
Freehand Drawing	Sign Language
Furniture Finishing	Stained Glass
Income Tax, Basic	Stock Market
Interior Decorating	Tailoring
Knitting	Upholstery
Law for Laymen	Wallpaper Hanging
Leather Crafts	Weaving
Local History & Genealogy	Wills, Trusts, & Probate
Macrame	Woodcarving
Menu Planning with Natural Foods	

Listed below are course descriptions for some of the more popular courses:

**Acrylic Painting**—The students start by using a picture or photograph to paint from, then progress to composing original paintings. Instruction includes how to blend colors, how to obtain depth, and how to soften colors so they are not raw. Still lifes will be arranged for painting and field trips may be scheduled.

**Bread Baking**—In this class the student will learn how to bake onion casserole bread, herb bread, cream puffs, petit fours, fancy holiday cookies, little babas (French yeast), Hungarian crescents, and Czechoslovakian Kolachy (fruit filled).

**Cake Decorating**—Emphasis will be placed on decorating equipment and its use. The course will also emphasize the decoration of birthday, anniversary, and special occasion cakes.

**Calligraphy**—The art of italic handwriting will be taught. Included in instruction will be the writing tools and materials required, the care of the tools, the proper posture and pen hold necessary, the proper letter strokes, the joining of letters and pen lifts and spacing.

**Ceramics**—This is a course introducing the student to the art of ceramics. The student will begin with pieces that are ready molded (greenware). The student will learn to clean the greenware, glaze, paint and make preparations to have the completed greenware fired in the kiln. Students furnish their own supplies and retain articles which they make.

**Flower Arranging**—Art principles related to the mechanics of floral arrangement for everyday living and special occasions will be studied. Students will practice arrangements in class in an effort to build confidence in their ability to arrange flowers artistically.

**Freehand Drawing**—This course covers basic perspective, composition, shading, landscapes, and still life sketching. Special emphasis will be placed on the human figure and a dash or two of cartooning will be included.

**Furniture Finishing**—The lecture/lab method will be used in teaching the various processes of finishing and refinishing furniture. The instructor will discuss and demonstrate the process. The student must bring a small piece of old furniture to practice what the teacher has demonstrated.

**Income Tax**—This course consists of study and application of the federal and state income tax system. Emphasis will be placed upon gathering the data necessary for preparation of tax forms, i.e. 1040. Actual preparation and deductions will be completed in class.

**Interior Decorating**—Various materials, shadows, and colors will be used to illustrate the modern, informal, and casual decoration of the home.

**Macrame**—Basic macrame knots will be learned in constructing knotted projects such as jewelry, plant holders, wall hangings, and articles of clothing such as belts, vests, and other apparel.

**Menu Planning with Natural Foods**—The course will teach the student to cook with wheat, soybeans, honey, sprouts, and dried beans and to expand their uses in dishes for every meal.

**Oil Painting**—This is an introductory course to oil painting. Included are acquisition of materials, basic understanding through lecture, accomplishment of one complete oil painting, and a realistic study of still life.

**Sewing: Clothing Construction I**—The student will receive instruction in selecting proper pattern size, fabric selection, and operation of the sewing machine. A garment will be constructed in class. This class is for the beginner.

**Upholstery**—This course is designed for non-professional persons who wish to learn to upholster. Students must bring a small upholstered chair to practice the principles learned in class.

**Wallpaper Hanging**—This course will make the student aware of the different types, quality, and patterns in wall coverings. It will provide demonstrations and limited practice in removing old wallpaper, preparation for new covering, and pasting up paper.

**Wills, Trusts, & Probate**—A basic course to help an individual to understand what a will is, its effect on one's property, and the effect of not having a will. The course will deal with probate, responsibility of a personal representation and taxation. The second part of the course deals with establishment of trust and its use to an individual.



## ADULT HIGH SCHOOL DIPLOMA PROGRAM

Forsyth Technical Institute, in cooperation with the Winston-Salem/Forsyth County School System and the Stokes County School System offers day and evening courses for high school credit to adult students who wish to obtain an adult high school diploma. Courses are taught at Forsyth Technical Institute, Paisley High School and South Stokes High School.

Classes meet weekly during the day and evening hours. (There may be slight variations in time). Each class meets a total of 6 hours a week for eleven (11) weeks. Students may carry as many as four courses a quarter. A total of 18 courses is needed to complete the program. A passing score on the high school competency test is required before graduation. No student will receive credit for a course if his cumulative absences and/or tardies total more than six hours. Late enrollment or late payment of fees does represent absences.

Generally, persons to be enrolled must be 18 years of age or older. Under certain circumstances, however, 16 and 17 year olds may be enrolled by special permission. These applicants must still meet the requirements as set forth in state guidelines. Each enrollee must have completed the eighth grade, or a higher grade, in an accredited school; the eighth grade level in the Adult Basic Education Program conducted by the Department of Community Colleges; or the eighth grade equivalent on the GED or high school equivalency tests.

Information regarding eligibility, courses needed for graduation, and registration for classes can be obtained from the Admissions Office at Forsyth Technical Institute between 8 a.m. and 8 p.m., Monday through Thursday and between 8 a.m. and 5 p.m. Friday.

There is a \$5.00 registration fee for each course. Students must furnish their own books and supplies. (No fee is charged for any person age 65 or older.)

Transcripts of work completed will be furnished by the Records Office on written request of the student.

The Adult High School Diploma Program includes such courses as:

Algebra  
American Government  
American Literature  
Biology  
Black Writers  
Bookkeeping  
Business Law  
Business Math  
Consumer Math  
Current Literature  
Drama  
Economics  
Electronic Calculators  
English I, II, III, IV

English Language Arts  
English Literature  
Essentials of English  
General Math  
General Science  
Health  
Humanities  
Metric Math  
Physical Science  
Psychology  
Record Keeping  
Typewriting  
U.S. History  
World Literature



## ADULT BASIC EDUCATION PROGRAM

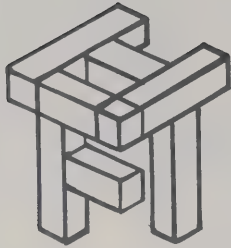
The purpose of the Adult Basic Education program is to provide education for the uneducated or undereducated adult with less than an eighth grade education. The program is designed for those adults over 18 whose inability to speak, read, or write the English language makes it difficult for them to find jobs or remain in their present jobs.

The primary objectives of the program are:

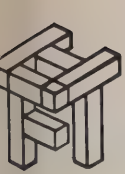
1. to enable these adults to become less dependent on others;
2. to enhance their ability to benefit from other occupational training;
3. to increase their opportunities for better and more rewarding jobs;
4. to make them better able to meet their adult responsibilities; and
5. to allow them to obtain an eighth grade educational level.

Adult Basic Education classes are held at various locations throughout Forsyth and Stokes counties. Classes are conducted during the day and evening hours. Classes usually meet two nights per week, three hours per night. No fees are charged to the student and all books and materials are supplied free of charge.









## PERSONNEL



## PERSONNEL OF THE INSTITUTE

### BOARD OF TRUSTEES

Chairman ..... Dewitt E. Rhoades  
Vice Chairman ..... Selvey J. Boyer

### APPOINTED BY THE GOVERNOR      Term Expires

Dewitt E. Rhoades ..... 1981  
President, Facts Business Equipment Inc.  
Robert F. Joyce ..... 1983  
Regional Mgr., N.C. Dept. Natural Resources  
& Community Development  
John P. Arrowood ..... 1985  
Vice President, Wilson-Covington Construction Co.  
Dr. Velma G. Watts ..... 1987  
Early Childhood Education

### APPOINTED BY COUNTY COMMISSIONERS

Ned R. Smith<sup>7</sup> ..... 1981  
Winston-Salem/Forsyth County Schools (Retired)  
Mrs. Selvey J. Boyer ..... 1983  
Instructor, Parkland High School  
Z. Gray Jackson ..... 1985  
Director, Consumer Credit Counseling Service  
Clyde F. McSwain ..... 1987  
Printing Instructor, Winston-Salem/Forsyth  
County Schools

### APPOINTED BY WINSTON-SALEM/ FORSYTH COUNTY BOARD OF EDUCATION

Dr. H.P. VanCleve ..... 1981  
Bowman Gray School of Medicine  
Carroll G. Tompson ..... 1983  
R.J. Reynolds Tobacco Company (Retired)

### APPOINTED BY WINSTON-SALEM/ FORSYTH COUNTY BOARD OF EDUCATION

Dr. Charlie B. Hauser ..... 1985  
Winston-Salem State University (Retired)  
Beaufort O. Bailey ..... 1987  
Media Director, Winston-Salem State University

### APPOINTED BY STUDENT GOVERNMENT ASSOCIATION

Current SGA President ..... (non-voting member)

### ADMINISTRATIVE OFFICERS

Bob H. Greene ..... President  
T. Glen Fleeman, Jr. .... Executive Vice President, Instructional  
Affairs  
Charles R. King ..... Vice President For Student Services  
Charles P. Branch ..... Vice President For Business Affairs

## INSTRUCTION

T. Glen Fleeman, Jr., Executive Vice President

### Curriculum Programs

Marvin L. Allen ..... Dean, Business Technologies  
Harley P. Affeldt ..... Dean, Engineering Technologies  
Grace B. Corey ..... Dean, General Studies Division  
James R. Winning ..... Dean, Health Technologies

### Library

Audrey B. Zablocki ..... Director  
Thomas F. Gordon ..... Reader Services Librarian  
Brenda B. Bodsford ..... Audio-Visual Technician  
Polly King ..... Head, Library Technical Assistant  
Jennifer Springs ..... Library Technical Assistant

### Individualized Learning Center

Ernest W. Tompkins ..... Director  
Anne M. Teachey ..... Coordinator  
Paul D. Apple ..... Coordinator

### Continuing Education

L.T. Williams ..... Dean  
William Fournier ..... Associate Dean, Occupational Extension  
R. Shelton Jones ..... Associate Dean, Academic Extension  
Velma A. Jackson ..... Director, Adult Basic Education  
Frances W. Proctor ..... Coordinator/Supervisor, Health Related  
Extension  
Nathan M. Revel ..... Supervisor/Instructor, ABE, Adult High  
School

### STUDENT SERVICES

Charles R. King ..... Vice President  
..... Director, Counseling  
J. Bruce Shepherd ..... Director, Admissions and Records  
George McLendon ..... Counselor/Coordinator  
Ben Howell ..... Counselor  
Colleen Richardson ..... Counselor  
Borys Leoczko ..... Veterans Affairs Coordinator  
Diane L. Sims ..... Financial Aid Coordinator  
Merrill J. Gordon ..... Registrar  
Becki Weaver ..... Admissions Counselor  
Sandra E. Wise ..... Admissions Counselor  
Lorraine Wood ..... Admissions Counselor

### INSTITUTIONAL DEVELOPMENT/PUBLIC RELATIONS

Jean R. Perkins ..... Coordinator

### PERSONNEL/EVENING PROGRAMS

Larry V. Weaver ..... Director



## BUSINESS AFFAIRS

Charles P. Branch ..... Vice President  
 Royce W. Keith ..... Director of Financial Services  
 Glen A. Hunter ..... Chief Security Officer  
 Jerry D. Rogers ..... Director of Auxiliary Services  
 Ron M. Gullette ..... Director of Physical Plant

## FACULTY AND STAFF

Harley P. ..... Dean, Engineering Technologies Division  
 B.S. and M.Ed. Virginia Polytechnic Institute; further graduate study at University of Virginia and North Carolina State University; Nova University graduate program  
 Marvin L. ..... Dean, Business Technologies Division  
 B.A., Davidson College; M.B.A., East Carolina University; Nova University graduate program  
 Sammy L. ..... Business Administration  
 B.S., M.A., Appalachian State University  
 Ann S. ..... Department Chairman-Office Skills Center  
 B.A., Guilford College; M.S.B.E., University of North Carolina-Greensboro  
 Paul D. ..... Coordinator, Individualized Learning Center  
 B.S., Bowling Green State University; M.A., Toledo State University  
 Harold L. ..... Department Chairman, Horticulture  
 B.S., M.S., North Carolina State University  
 Rae S. ..... Practical Nurse Education  
 R.N., Charlotte Memorial Hospital School of Nursing; further study, Winston-Salem State University  
 Patrick D. .... Department Chairman, Electronic Data Processing  
 B.S., Wake Forest University; M.Ed., University of North Carolina-Greensboro  
 John E. .... Department Chairman, Manufacturing Engineering Technology  
 B.S.M.E., North Carolina State University; Professional Engineer State of North Carolina; further graduate study, A & T State University  
 Janice A. .... Business Administration  
 A.A.S., Asheville-Buncombe Tech., B.T., Appalachian State University; M.B.A., University of North Carolina-Greensboro  
 W.L. .... Department Chairman, Welding  
 B.S., Industrial Technology, A & T State University; graduate study North Carolina State University; Certified Aircraft and Missile Welding  
 Jerre D. .... Associate Degree Nursing  
 R.N., Duke University School of Nursing; B.S., Richmond Professional Institute; M.A., University of North Carolina-Chapel Hill  
 Floyd E. .... Department Chairman, Respiratory Therapy Technology  
 R.R.T., C.R.T.T., A.A.S., Forsyth Technical Institute  
 Charles P. .... Vice-President, Business Affairs  
 A.A., National Business College; B.A., Lynchburg College; graduate study, Appalachian State University; College Business Management Institute, University of Kentucky  
 Bonnie R. .... Associate Degree Nursing  
 R.N., B.S.N., M.S.N., University of North Carolina-Greensboro  
 Edward I. .... Department Chairman, Plumbing  
 Licensed Plumbing Contractor with seventeen years experience in residential and commercial contracting  
 Joan ..... Associate Degree Nursing  
 R.N., Reynolds Memorial Hospital School of Nursing; B.S.Ed., Winston-Salem State University; M.Ed., North Carolina A & T State University

Burns, Herbert I. .... Department Chairman, Architectural Technology  
 A.A., Lee's Jr. College; B. of Architecture, University of Kentucky  
 Byers, Samuel A. .... Physics  
 B.S., Engineering-Physics, North Carolina A & T State University; M.S., Electrical Engineering, North Carolina A & T State University  
 Carter, Richard D., Sr. .... Department Chairman, Automotive Body Repair  
 Piedmont Bible College; Special Chevrolet training; qualified technician; General Motors Training Center  
 Cates, Ray C. .... Horticulture  
 B.S., North Carolina State University; M.Ed., University of North Carolina; further graduate study, University of North Carolina-Greensboro  
 Chandler, Joseph W., III .... Business Administration  
 B.S., University of South Carolina; CPA, State of North Carolina; continuing study—American Institute of CPA's and NCACPA  
 Clanton, Rachel .... Radiologic Technology  
 North Carolina Baptist Hospital, Bowman Gray School of Radiologic Technology; A.R.R.T., A.A.S., Forsyth Technical Institute  
 Conner, Elizabeth H. .... Life Sciences  
 B.S., Duke University; M.A., University of Missouri  
 Corey, Grace B. .... Dean, General Studies Division  
 B.S., University of North Carolina-Greensboro; M.Ed., University of North Carolina-Greensboro  
 Dalton, Jo Ann M. .... Associate Degree Nursing  
 R.N., City Memorial Hospital School of Nursing; B.S.N., Winston-Salem State University  
 Dalton, Patricia G. .... Department Chairman, Executive Secretarial Science  
 B.S., M.Ed., University of North Carolina-Greensboro; additional study, North Carolina State University and Appalachian State University  
 Darden, Jean L. .... Practical Nurse Education  
 R.N., Watts Hospital School of Nursing; B.S.N., Winston-Salem State University; further study, Wake Forest University and University of North Carolina at Chapel Hill  
 DeVane, Gloria H. .... Pre-Technical  
 B.S., North Carolina Central University  
 Diaz, Jane .... Associate Degree Nursing  
 R.N., B.S.N., Medical College of Virginia  
 Dosier, Ernestine .... Associate Degree Nursing  
 R.N., B.S.N., Winston-Salem State University; Graduate courses at Wake Forest University  
 Fain, Adeline E. .... Department Chairman, Social Sciences  
 A.B., Washington University; M.A.Ed., University of North Carolina-Greensboro  
 Fishel, Wilburn C. .... Automotive Body Repair  
 Thirty-two years experience in auto body repair; certified State Fire Service Instructor; DuPont Refinishers Center diploma  
 Fleeman, T. Glen, Jr. .... Executive Vice President, Instructional Affairs  
 B.S., Concord College; M.Ed., University of North Carolina-Greensboro  
 Forrest, William C. .... Humanities  
 B.A., University of North Carolina-Charlotte; M.A., Appalachian State University  
 Foster, Lloyd L., Jr. .... Electronics Engineering Technology  
 B.S., Virginia Polytechnic Institute & State University; M.Ed., University of North Carolina-Greensboro  
 Fournier, William L. .... Associate Dean, Occupational Extension  
 B.A., Shepherd College; M.A., George Washington University; further study, University of Pittsburgh, University of Maryland



- Frye, Ann W. .... Pre-Technical  
B.A., Education, University of North Carolina-Greensboro; further study, North Carolina State University
- Gardner, John E. .... Department Chairman, Electronic Servicing  
CET; IS CET; Coyne Electrical School; R.C.A. Institutes; Capitol Radio Engineering Institute
- Goforth, D. Shelton .... Department Chairman, Life Sciences  
B.S., M.A., Appalachian State University
- Gordon, Merrill J. .... Registrar  
A.A.S., Forsyth Technical Institute; B.A.S., Guilford College
- Gordon, Thomas F., Jr. .... Reader Services Librarian  
A.B., Duke University; M.S., University of North Carolina-Chapel Hill
- Grady, Stanley .... Electronic Data Processing  
B.S., A & T State University; further studies at Electronic Computer Programmer Institute; further study, University of North Carolina-Greensboro
- Gray, Retta W. .... Pre-Technical  
B.A.E., University of Florida; M.A., Appalachian State University; graduate study, University of Florida, Florida State University, Western Carolina University, Jacksonville University, and Davidson College.
- Greene, Bob H. .... President  
B.S., M.A., Appalachian State University; Ed.D., Nova University
- Grose, Odell, Jr. .... Carpentry  
Seventeen years experience in field of carpentry
- Gullette, Jon M. .... Director of Physical Plant  
B.A., University of South Florida
- Haire, Martha L. .... Practical Nurse Education  
R.N., North Carolina Baptist Hospital School of Nursing; B.S., Wake Forest University; further study, North Carolina State University; graduate study, Wake Forest University
- Hanes, Kenneth D. .... Department Chairman, Electrical Installation  
Electrician Apprenticeship Program, Forsyth Technical Institute, Licensed electrical contractor
- Harkness, Donald G. .... Department Chairman, Nuclear Medicine Technology  
A.A.S., Forsyth Technical Institute; B.S.N.M.T., Medical College of Georgia
- Harrison, Harold .... Department Chairman, Graphic Arts  
Mechanical Drafting, I.C.S., Mechanical Engineering, I.C.S.
- Hege, Raymond W. .... Department Chairman, Carpentry  
Forty-two years experience in the field of carpentry
- Hines, Harvey L. .... Department Chairman, Automotive Mechanics  
Certified by National Institute for Automotive Service Excellence (N.I.A.S.E.); further study, General Motors Training School, Ford Motor Company Training School, Aamco Training Center, North Carolina State University and High Point College
- Hinson, Tommy R. .... Department Chairman, Mathematics  
A.A., Wingate Junior College; B.S., Appalachian State University; M.Ed., University of North Carolina; further study, Wake Forest University
- Holland, Margaret B. .... Department Chairman, Practical Nurse Education  
Mitchell College; R.N., North Carolina Baptist Hospital School of Nursing; B.S.N., Winston-Salem State University
- Howell, Benjamin L. .... Counselor  
B.A., Wake Forest University; M.A., Appalachian State University
- Hunter, Glen A. .... Chief Security Officer  
A.A.S., Forsyth Technical Institute; Law Enforcement Certificate, Forsyth Technical Institute
- Jackson, Velma A. .... Director, Adult Basic Education  
B.S., Winston-Salem State University; M.A., Columbia University; Ed.D., North Carolina State University; Professional Diploma in Guidance, Columbia University; further study, University of Wisconsin, North Carolina State University
- Jolly, Drusilla B. .... Life Sciences  
B.S., M.A., Appalachian State University
- Jones, Lester M. .... Department Chairman, Air Conditioning Refrigeration, Heating  
Graduate, Coyne Electrical School; Certified Refrigeration Service Engineers, Phillips Ford Corporation Training Program; State Certification North Carolina; further study, Lake Michigan College
- Jones, R. Shelton .... Associate Dean, Academic Extension  
B.S., M.S., Virginia Polytechnic Institute; Undergraduate work William & Mary College-Norfolk; advanced study, University of North Carolina-Greensboro; further study, Western Michigan University, Virginia Commonwealth University Extension
- Jones, Randall R. .... Department Chairman, Machine Mechanical Engineering Certificate, International Correspondence School; Machinist Apprenticeship, Johnson City Foundry and Machine Works, Tennessee
- Kahl, George H. .... Department Chairman, Diesel Truck Maintenance and Repair  
A.A.S., Milwaukee Institute of Technology; B.S., Stout University; Undergraduate study Drake University; M.Ed., University of North Carolina-Greensboro; Journeyman Certificate, Diesel Mechanics
- Kandara, Nicholas G. .... Mechanical Drafting and Design Technology  
B.A., Guilford College
- Keith, Joyce W. .... Director of Financial Services  
A.A.S., Forsyth Technical Institute
- King, Charles R. .... Vice President, Student Services  
A.A., University of North Carolina-Wilmington; A.B., East Carolina University; M.Ed., University of North Carolina-Greensboro
- King, Mary L. .... Practical Nurse Education  
R.N., Mayview Hospital School of Nursing; further study, Winston-Salem State University
- Kirby, Audrey S. .... Department Chairman, Humanities  
B.S., M.A., Appalachian State University; graduate study, North Carolina State University and University of North Carolina-Greensboro
- Lee, Linda M. .... Humanities  
A.B., Wake Forest University; M.Ed., University of North Carolina-Greensboro
- Lehmann, Kenneth L. .... Department Chairman, Industrial Management  
B.B.A., Western Reserve University; M.S., Postsecondary Technical Education, University of Akron; further graduate study, University of Illinois, Oberlin College, Case Western Reserve University, American Management Association
- Leoczko, Borys .... Coordinator, Veterans Affairs  
B.A., Wake Forest University
- Lore, Ann .... Coordinator, Associate Degree Nursing  
B.A., Pfeiffer College; R.N., Robeson County Memorial School of Nursing; M.Ed., University of North Carolina-Greensboro; Ed.D., Nova University
- Love, L. Alan .... Physical Therapy  
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- Lowery, Luther M. .... Associate Degree Nursing  
R.N., B.S.N., A & T State University-Greensboro
- Lundgren, Loren W. .... Business Administration  
B.S., Northern Illinois University; further study Northern Illinois University and North Carolina State University; M.Ed. in progress, University of North Carolina-Greensboro



- Mayerchak, Thomas J.** ..... Department Chairman, Mechanical Drafting and Design Technology  
Newark College of Engineering; LaSalle University
- Maynard, Judith H.** ..... Associate Degree Nursing  
R.N., B.S.N., University of North Carolina-Greensboro
- McLendon, George** ..... Counselor/Coordinator, Adult Career Guidance Center  
B.S., Winston-Salem State University; M.S., North Carolina Agricultural and Technical State University; further study Lenoir Rhyne College, Wake Forest University, and University of North Carolina-Greensboro
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B.S., M.A., Appalachian State University; North Carolina S.B.I. Academy, Diploma, University of North Carolina-Asheville
- Metts, Alvin S.** ..... Department Chairman, Physics  
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B.A., Guilford College; R.N., City Memorial Hospital School of Nursing
- Mutton, Albert F., Jr.** ..... Respiratory Therapy Technology  
B.S., East Tennessee State University; M.S., East Tennessee State University; registered cardiopulmonary technologist
- Neumann, Leslie L.** ..... Social Sciences  
B.S., Wayne State University; M.A.Ed., Wake Forest University
- Norman, Emma Lee** ..... CETA Instructor  
B.S.B.E., Langston University; further study, North Carolina Central University
- O'Pharrow, Richard L.** ..... Life Sciences  
B.S., Johnson C. Smith University; M.A.T.M., University of Detroit; graduate study, Fisk University and Vanderbilt University
- Owens, Florence** ..... Associate Degree Nursing  
R.N., B.S.N., Winston-Salem State University
- Perkins, Jean R.** ..... Coordinator, Institutional Development  
B.A., Winston-Salem State University; further study, Radford University and Forsyth Technical Institute; special training, Long, Haymes and Carr, Advertising and Public Relations; Certificate in Multi-Media Communications
- Peters, Ann R.** ..... Marketing and Retailing  
B.S.B.A., M.A.Ed., Western Carolina University
- Peters, Maribeth S.** ..... Associate Degree Nursing  
R.N., B.S.N., St. Joseph College; M.S.N., University of North Carolina-Greensboro; further study, University of North Carolina-Greensboro
- Petree, Patricia** ..... Associate Degree Nursing  
R.N., City Memorial Hospital School of Nursing; B.S.N., Winston-Salem State University
- Poindexter, Gladys** ..... Practical Nurse Education  
R.N., Duke University School of Nursing; B.S.N., Winston-Salem State University
- Proctor, Frances W.** ..... Coordinator/Supervisor of Health Extension Technologies  
R.N., Rex Hospital School of Nursing; further study, Winston-Salem State University; further study, UNC-Chapel Hill
- Rajacich, Carolyn** ..... Associate Degree Nursing  
R.N., Rowan Memorial Hospital; B.S.N., Winston-Salem State University
- Raymer, Mary T.** ..... Pre-Technical  
B.S., Florida State University; M.S., Florida State University
- Reed, Stewart W.** ..... Department Chairman, Electronics Engineering Technology  
B.S.Ed., University of Alabama; M.Ed., University of North Carolina-Greensboro
- Revel, Nathan M.** ..... Supervisor/Instructor, ABE, Adult High School  
B.S., Winston-Salem State University; further graduate study, University of North Carolina-Chapel Hill and Wake Forest University
- Richardson, Colleen R.** ..... Counselor  
B.A., Appalachian State University; M.Ed., Wake Forest University
- Ripley, Delia** ..... Associate Degree Nursing  
R.N., B.S.N., University of North Carolina-Chapel Hill
- Ritchie, Clyde F., Jr.** ..... Department Chairman, Radiologic Technology  
North Carolina Memorial Hospital, University of North Carolina-Chapel Hill, A.R.R.T., B.S., Alderson-Broadbudd College
- Robbins, Frederick** ..... Manufacturing Engineering Technology  
A.A.S., Forsyth Technical Institute
- Rogers, Jerry D.** ..... Director of Auxiliary Services  
Twenty years experience in retail management; National Association of College Stores, Management Survey Certificate, Oberlin, Ohio
- Sample, Phyllis D.** ..... Associate Degree Nursing  
R.N., B.S.N., University of Bridgeport
- Sharpe, Franklin R.** ..... Diesel Truck Maintenance and Repair  
Mack Truck Training Center, Cummins Engine Training Center, Detroit Diesel Training Center, Ford Motor Training Center. Twenty-one years diesel experience.
- Shepherd, J. Bruce** ..... Director, Admissions and Records  
B.S., Appalachian State University; M.A., Appalachian State University; further graduate study at East Carolina University, Western Carolina University
- Sherrill, Sharon L.** ..... Humanities  
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- Shirk, Robert D.** ..... Pre-Technical  
B.R.E., Piedmont Bible College; B.A., Salem College; M.S.H.E., University of North Carolina-Greensboro; further graduate study, University of North Carolina-Greensboro
- Sims, Diane L.** ..... Coordinator, Financial Aid  
B.A., Catawba College; further graduate study at University of North Carolina-Greensboro
- Sineath, Alice B.** ..... Business Administration  
B.S.B.A., M.A., Appalachian State University
- Sledge, Sandy D.** ..... Executive Secretarial Science  
B.S., M.B.E., University of North Carolina-Greensboro
- Smith, Teresa** ..... Nuclear Medicine Technology  
A.A.S., Forsyth Technical Institute; B.S., Greensboro College
- Staley, Thomas R.** ..... Department Chairman, Business Administration  
B.S., Appalachian State University; M.Ed., University of North Carolina; further study, Guilford College, North Carolina State University
- Stephenson, Andrew H.** ..... Department Chairman, Marketing and Retailing  
A.B., High Point College; M.Ed., University of North Carolina-Greensboro; advanced study, George Washington University, Marine Corps Institute
- Stewart, Mary H.** ..... Practical Nurse Education  
R.N., B.A., Lenoir Rhyne College; B.S., John Hopkins University
- Stoltz, Herbert E.** ..... Automotive Mechanics  
Disc Brake School, Automotive Tune-up School, G.M. Training Center; twenty years experience in field of automotive mechanics
- Stowers, Marilyn H.** ..... Coordinator, Pre-Technical  
B.S., Atlantic Christian; M.Ed., University of North Carolina-Greensboro; graduate study, University of North Carolina-Chapel Hill, Wake Forest University; further study, Queens College, Orton Reading Center, Salem College, Bowman Gray School of Medicine; North Carolina Certification in Learning Disabilities



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B.S., M.S., North Carolina State University; two years toward Ph.D., North Carolina State University; further graduate study, University of North Carolina-Greensboro

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B.S., University of North Carolina-Greensboro; additional study, Wake Forest University and North Carolina State University

**Tedder, Jake D.** ..... Business Administration  
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**Tharpe, Betty H.** ..... Department Chairman, Building Trades Drafting  
Western Electric Training Center; General Electric Design Course; Elon College

**Tompkins, Earnest Wayne** ..... Director, Individualized Learning Center  
A.A., Emmanuel College; B.A.B.S., Jacksonville State University; M.A., Appalachian State University; Ed.D., North Carolina State University; further study, University of Alabama

**Tripp, Ellen L.** ..... Humanities  
A.B., Emerson College; M.A., Winthrop College; Ph.D. in progress, University of North Carolina-Greensboro

**Trotter, Donald L.** ..... Electronics Engineering Technology  
B.S.E.E., North Carolina State University; North Carolina Registered Professional Engineer

**Tuttle, Jeffrey L.** ..... Department Chairman, Banking and Finance  
B.S., M.A., Appalachian State University

**Tyndall, Robert A.** ..... Mathematics  
B.S., M.A., East Carolina University; further graduate study, Western North Carolina State University

**VanHorn, JoAnn E.** ..... Clinical Coordinator, Respiratory Therapy Technology  
C.R.T.T., R.R.T., A.A.S., Forsyth Technical Institute

**Vestal, Betty D.** ..... Mathematics  
B.S., Appalachian State University; M.A., Wake Forest University; further graduate study, University of North Carolina-Greensboro

**Weaver, Becki** ..... Admissions Counselor  
A.A.S., Forsyth Technical Institute; B.S.A.S., Winston-Salem State University

**Weaver, Larry V.** ..... Director, Personnel and Evening Programs  
A.A.S., Rowan Technical Institute; A.A.S., Forsyth Technical Institute; B.S.A.S., Winston-Salem State University; M.Ed. in progress, University of North Carolina-Greensboro

**Whisnant, Patricia N.** ..... Department Chairman, Early Childhood Specialist  
B.S., Wake Forest University; M.Ed., University of North Carolina-Greensboro

**White, Norman** ..... Welding  
Special training, North Carolina State and Pratt Institute; Anaconda Welding Training Program; further study, University of Tennessee-Oak Ridge

**Wilder, William B.** ..... Automotive Mechanics  
Certified by National Institute for Automotive Service Excellence (N.I.A.S.E.); further study Chowan College, Forsyth Technical Institute, General Motors Training Center

**Williams, L.T.** ..... Dean, Continuing Education Division  
B.S., Western Carolina University; M.Ed., University of North Carolina-Greensboro; further study, North Carolina State University

**Williams, Thelma M.** ..... Executive Secretarial Science  
B.A., Bennett College; M.B.E., University of North Carolina-Greensboro

**Winning, James R.** ..... Dean, Health Technologies Division  
B.S., Clemson University; M.A., East Tennessee State University; Ed.D., Nova University

**Wise, Sandra E.** ..... Admissions Counselor  
B.A., Wingate College

**Wood, E. Lorraine** ..... Admissions Counselor  
B.S., North Carolina Central University; further study, Forsyth Technical Institute

**Wright, A. Kathryn** ..... Associate Degree Nurse  
R.N., West Suburban Hospital School of Nursing; B.S., Appalachian State University

**Wyatt, Laura W.** ..... Pre-Technical  
B.S., Towson State University; further studies North Carolina State University, State College, University of North Carolina-Greensboro

**Zablocki, Audrey B.** ..... Director, Library Services  
B.S., Appalachian State University; M.Ed., University of North Carolina-Greensboro; advanced professional study, University of North Carolina-Chapel Hill; graduate study, Wake Forest University





Baity, Lynette . . . . . Secretary, Financial Affairs/Veterans Affairs  
 Barber, Emily . . . . . Secretary, Counseling Center  
 Bassett, Mary . . . . . Secretary, Director of Admissions and Records  
 Bodsford, Brenda . . . . . Audio-Visual Technician  
 Boger, Dawn . . . . . Clerk, Faculty/Staff Service Center  
 Bost, Mary Lou . . . . . Evening Switchboard Operator  
 Bowen, Karen . . . . . Secretary, Business Technologies Division  
 Brady, Mattie . . . . . Secretary, Admissions Office  
 Brown, Betty . . . . . Evening Secretary, Student Services Division  
 Brown, Sherry . . . . . Secretary, Personnel/Evening Director  
 Bumgarner, Miriam . . . . . Secretary, Records Office  
 Burton, Roslyn . . . . . Switchboard Operator  
 Edwards, Kevin . . . . . Security Officer  
 Ferguson, Danna . . . . . Secretary, Adult Continuing Education  
 Flynt, Ethel . . . . . Secretary, Individualized Learning Center  
 Fox, Betty . . . . . Secretary, Institutional Development  
 Fulcher, Karen . . . . . Payroll Bookkeeper  
 Galyean, Jo Ann . . . . . Equipment Coordinator  
 Gilbert, Catherine . . . . . Secretary, Records Office  
 Gordon, Margaret . . . . . Clerk, Adult Continuing Education  
 Grubbs, Julia . . . . . Secretary, Health Technologies Division  
 Kilgore, G. Jean . . . . . Secretary, Director of Adult Basic Education  
 King, Polly . . . . . Head, Library Technical Assistant  
 Leoczko, Beverly . . . . . Secretary, CETA Program  
 Lewis, Pat . . . . . Secretary, Faculty/Staff Service Center  
 Lundgren, Eric . . . . . Technician, Auto Mechanics  
 Mecum, Ann . . . . . Secretary, Engineering Technologies Division  
 Mendenhall, Martha . . . . . Secretary, Dean of Adult Continuing Education  
 Mobley, Debra . . . . . Secretary, Associate Dean of Adult Continuing Education  
 Neas, Jan . . . . . Special Funds Bookkeeper  
 Owen, Martha . . . . . Cashier/Accounts Payable Bookkeeper  
 Parrott, Carrie E. . . . . Secretary, President  
 Pass, Betty . . . . . Secretary, Physical Plant Department  
 Peddycord, Robin . . . . . Secretary, Associate Dean of Adult Continuing Education  
 Pegram, Lucille . . . . . Secretary, Vice President for Student Services  
 Ranson, Eva . . . . . Head Clerk, Bookstore  
 Reich, Gaynell . . . . . Secretary, Library Services  
 Seats, Teresa . . . . . Secretary, Parking/Security  
 Shaw, Helen . . . . . Secretary, Pre-Technical  
 Slater, Shirley L. . . . . Secretary, Executive Vice President  
 Springs, Jennifer . . . . . Library Technical Assistant

Swaim, Cathy . . . . . Secretary, Vice President for Business Affairs  
 Teal, Gloria . . . . . Teaching Assistant—CETA Program  
 Valadez, Francisco . . . . . Printing Technician  
 Vredenburg, Beverly . . . . . Computer Operator/Bookkeeper  
 Weaver, Cindy . . . . . Secretary, General Studies Division  
 Wise, Barbara . . . . . Scheduling Coordinator  
 Yates, Lenora . . . . . Secretary, Practical Nurse Education

## MAINTENANCE AND CUSTODIAL SERVICES

Booze, Joe . . . . . Maintenance Supervisor

## MAINTENANCE MECHANICS

Bruce Hege  
 David Motley  
 Ardeal Roseboro  
 Calvin Stevenson

Clark, Lillie . . . . . Housekeeping Supervisor

## CUSTODIANS

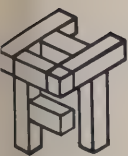
Donna Bishop	Leonard Melton
Hazel Broomfield	Ulysses Nesmith
Ollie Clement	Beulah Scales
Castina Cremedy	Michael Sheff
Bonita Crosby	Ruth Springs
Betty Larkin	











## **ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM**



# ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM

The curricula described on the following pages are technical in nature and, upon completion, will award the Associate in Applied Science degree. This degree is recognized nationally to indicate the successful completion of two years of education beyond the high school level.

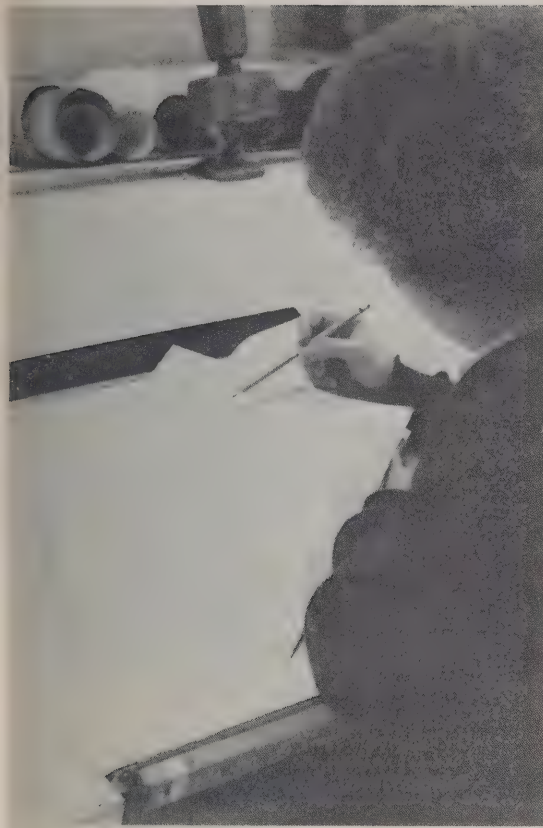
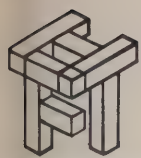
The listing of courses for each curriculum is shown in the proper sequence; consequently, applicants should plan their attendance to be over 21 or 24 consecutive months.

The Institute's purpose is to offer the technical courses which will prepare the graduate for immediate employment opportunities. Therefore, the ability to transfer to other institutions of higher education, and transfer credit granted, will be determined by the receiving institution.

### Sample Course Listing

	C	L	P	QH		
ENG	102	COMPOSITION	3	0	0	3
↑	↑	↑	↑	↑	↑	↑
Course Prefix	Course Number	Course Title	Classroom Hours per week	Laboratory Hours per week	Practicum per week (Practical application or clinical experience per week.)	Quarter Hours Credit
			↑   ↑   ↑			
			Contact Hours per week			





## ARCHITECTURAL TECHNOLOGY T-041

The architectural technician is concerned with turning the architect's design sketches into complete and accurate working plans and detail drawings for construction purposes. He may prepare floor plans; elevation drawings; construction details; mechanical equipment layouts; door, room and window schedules; and site plans. The technician will be involved in work requiring a knowledge of building codes, specifications and contract documents.

The curriculum was designed in cooperation with the North Carolina Chapter of the American Institute of Architects. It provides the individual with knowledge and skills that will lead to employment in the field of architectural drafting and afford opportunity for rapid advancement in technical knowledge and proficiency.

Total credit hours: 116

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
MAT 101	Technical Mathematics I	5	0	0	5
ENG 100	Oral Communication	3	0	0	3
DFT 106	Architectural Drafting I	2	0	6	4
DFT 181	History of Architecture and Construction	5	0	0	5
		15	0	6	17
<b>SECOND QUARTER</b>					
MAT 102	Technical Mathematics II	5	0	0	5
ENG 101	Introduction to Written Communication	3	0	0	3
CIV 105	Architectural Materials and Methods	3	2	0	4
DFT 107	Architectural Drafting II	2	0	6	4
		13	2	6	16
<b>THIRD QUARTER</b>					
MAT 103	Technical Mathematics III	5	0	0	5
AHR 106	Architectural Mechanical Equipment	3	0	3	4
PHY 111	Physics: Mechanics	3	2	0	4
DFT 108	Architectural Drafting III	0	0	9	3
		11	2	12	16
<b>FOURTH QUARTER</b>					
MEC 104	Applied Mechanics	5	0	0	5
DFT 150	Site Planning	2	0	6	4
PHY 113	Physics: Electricity	3	2	0	4
ECO 102	Economics I	3	0	0	3
		13	2	6	16

### Course Title

### Hours Per Week

#### FIFTH QUARTER

MEC 205	Strength of Materials	3	2	0	4
DFT 220	Architectural Drafting IV	2	0	9	5
ENG 102	Composition	3	0	0	3
DFT 233	Office Practice Seminar	2	0	0	2
		10	2	9	14

#### SIXTH QUARTER

DFT 221	Architectural Drafting V	2	0	9	5
DFT 235	Codes, Specifications, and Contract Documents	3	0	3	4
PSY 206	Applied Psychology	3	0	0	3
ENG 103	Technical Report Writing	3	0	0	3
	Elective*	3	0	0	3
		14	0	12	18

#### SEVENTH QUARTER

PHY 114	Physics: Light and Sound	3	2	0	4
ISC 201	Industrial Organization and Management	3	0	0	3
DFT 222	Architectural Drafting VI	2	0	9	5
DFT 236	Construction Estimating and Field Inspecting	3	0	3	4
	Elective*	3	0	0	3
		14	2	12	19

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit



# Forsyth Technical Institute

## 2100 Silas Creek Pkwy.

### Winston-Salem, N.C. 27103

**AHR 106 Architectural Mechanical Equipment** 3 0 3 4  
General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers. Coordination of mechanical and electrical features with structural and architectural designs. Prerequisite: None.

**CIV 105 Architectural Materials and Methods** 3 2 0 4  
Emphasizes materials used in the construction of architectural structures. Field trips to construction sites and study of manufacturer's specifications for materials. Properties and standard sizes of structural materials, and construction techniques included. Prerequisite: None.

**DFT 106 Architectural Drafting I** 2 0 6 4  
A course designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting include use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views. Projection problems dealing with principles of descriptive geometry involving points, lines, planes, and connectors. The principles of planning drafting introduced. Prerequisite: None.

**DFT 107 Architectural Drafting II** 2 0 6 4  
Developing of techniques in architectural lettering, symbols, and their interpretation: dimensioning, freehand and instrument drafting. Drawings of construction details, using appropriate material symbols and connections. Sections, scale details and full-size details prepared from preliminary sketches. Applications of descriptive geometry use in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections and developments. Prerequisite: None.

**DFT 108 Architectural Drafting III** 0 0 9 3  
Development of design and programming skills applied to realistic situations. Introduction to rendering and projections. Prerequisite: None.

**DFT 150 Site Planning** 2 0 6 4  
Introduction to factors influencing placement of buildings on sites. Specific analysis of sites in terms of solar, typographic, use and wind characteristics. Includes field work in surveying.

**DFT 181 History of Architecture and Construction** 5 0 0 5  
Covers the evolution of building development from primitive to modern. Concerned with the chronological history of architectural construction and design. The principal periods studied. Pre-history, Ancient Egypt and Mesopotamia, Greece, Rome, Romanesque, Gothic, Renaissance, and Early American. Prerequisite: None.

**DFT 220 Architectural Drafting IV** 2 0 9 5  
Drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction and fabrication of structural members. Reference materials used to provide the draftsman with skills and knowledge in locating data and in using handbooks. Prerequisite: None.

**DFT 221 Architectural Drafting V** 2 0 9 5  
An approach in depth to the study of architectural drafting, continuing the study of details of construction and introducing the elements of mechanical and electrical equipment systems and their relationship to a finished building. Prerequisite: None.

**DFT 222 Architectural Drafting VI** 2 0 9 5  
Preparation of the complete set of working drawings for the architectural structure. Preparation of millwork drawings, cabinets and built-in equipment detail drawings, and door, window, and room schedules. Site and landscaping plans studied and drawn. A final assembly of the complete document for construction purposes. Prerequisite: None.

**DFT 233 Office Practice Seminar** 2 0 0 2  
A study of the professional relationship of the architectural firm in relation to clients, contractors, suppliers, consultants and other architects. Ethics of the professional as applicable to the draftsman's role in the architectural firm stressed. Prerequisite: None.

**DFT 235 Codes, Specifications and Contract Documents** 3 0 3 4  
A study of building codes and their effect in relation to specifications and drawings. The purpose and writing of specifications studied along with their legal and practical application to working drawings. Contract documents analyzed and studied for the purpose of client-architect-contractor responsibilities, duties and mutual protection. Prerequisite: None.

**DFT 236 Construction Estimating and Field Inspecting** 3 0 3 4  
Interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; approximate and detailed estimates of cost. Includes study of materials take-off, labor take-off, subcontractor's estimates, overhead costs, and bid and contract procedures. Detailed inspection of the construction by comparing finished work to the specifications. Prerequisite: None.

**ECO 102 Economics I** 3 0 0 3  
A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ENG 100 Oral Communication** 3 0 0 3  
The course provides the student with opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**ISC 201 Industrial Organization and Management** 3 0 0 3  
A survey of the history of modern management and of the various functions which the manager of a modern industrial enterprise must perform. A study of the various departments which assist the manager in carrying out his responsibilities. Prerequisite: None.

**MAT 101 Technical Mathematics I** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, quadratic equations, vectors, oblique triangles and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement tests or MAT 004.

**MAT 102 Technical Mathematics II** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are exponents and radicals, the  $j$ -operator, logarithms, algebraic and trigonometric equations, inequalities, variations, progressions, advanced topics in trigonometry, and equations of higher degree. Prerequisite: MAT 101.

**MAT 103 Technical Mathematics III** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are the straight line, limits, geometric and algebraic interpretation of the derivative, applications of the derivative, integration, and applications of integration. Prerequisite: MAT 102.

**MEC 104 Applied Mechanics** 5 0 0 5  
Concepts and principles of statics. Parallel, concurrent and non-current force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia. Prerequisites: MAT 103, PHY 111.

**MEC 205 Strength of Materials** 3 2 0 4  
Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses made as applied to riveted and welded joints, beams, columns, and other components. Prerequisite: MEC 104.

**PHY 111 Physics — Mechanics** 3 2 0 4  
A fundamental course which develops the concepts of force motion work, energy and power. Also included are the topics of vector analysis, rotational motion and basic machines. Co-requisite: MAT 102.

**PHY 113 Physics — Electricity** 3 2 0 4  
A study of the basic principles of electricity including electron theory, direct current circuits, alternating current circuits, electro-magnetic interactions and batteries. Emphasis is on practical application through the study of electrical power generating, transmission and conversion devices. Prerequisite: PHY 111.

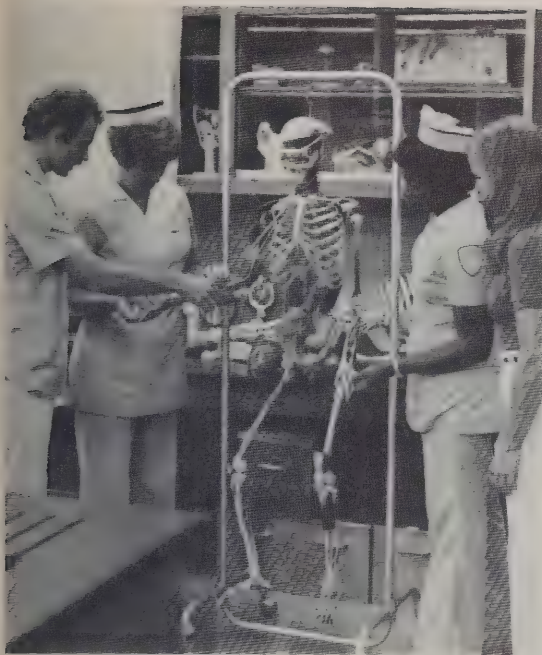
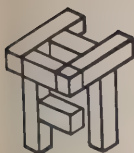
**PHY 114 Physics — Light and Sound** 3 2 0 4  
A study of wave motion and the generation, transmission and detection of sound and light. Topics include acoustics, illumination, optical devices and lasers. Practical application is emphasized through exercises an acoustical analysis of buildings and lighting system design and layout. Prerequisite: PHY 111.

**PSY 206 Applied Psychology** 3 0 0 3  
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

## ELECTIVES

Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval.





## ASSOCIATE DEGREE NURSING T-059

This program provides a combination of general education and nursing education. Clinical experience is provided in selected hospitals and other community health agencies. Graduates receive an Associate in Applied Science degree in Nursing and are eligible to write the State Board Test Pool Licensing Examination to become Registered Nurses (RN).

Total credit hours: 106

### Curriculum By Quarters

#### Course Title

#### Hours Per Week

C L P QH

#### FIRST QUARTER

BIO 107	Anatomy and Physiology I	3	2	0	4
NUR 119	Pharmacology	2	2	0	3
NUR 120	Medical-Surgical Nursing I	4	2	6	7
SOC 020	Academic Survival Skills	2	0	0	0
		11	6	6	14

#### SECOND QUARTER

BIO 108	Anatomy and Physiology II	3	2	0	4
NUT 101	General Nutrition	3	0	0	3
PSY 101	Psychology	3	0	0	3
NUR 122	Medical-Surgical Nursing II	4	2	6	7
		13	4	6	17

#### THIRD QUARTER

BIO 111	Microbiology	3	2	0	4
SOC 103	Sociology	3	0	0	3
NUR 124	Medical-Surgical Nursing III	4	0	12	8
		10	2	12	15

#### FOURTH QUARTER

ENG 101	Introduction to Written Communication	3	0	0	3
PSY 110	Life Span Psychology	3	0	0	3
NUR 126	Medical-Surgical Nursing IV	4	0	12	8
		10	0	12	14

#### FIFTH QUARTER

*NUR 3008	Cardiopulmonary Resuscitation (CPR)	0	0	0	0
	Elective	3	0	0	3
ENG 102	Composition	3	0	0	3
NUR 216	Maternity Nursing	4	0	12	8
				OR	
NUR 218	Pediatric Nursing	4	0	12	8
		10	0	12	14

#### SIXTH QUARTER

ENG 103	Technical Report Writing	3	0	0	3
PSY 111	Abnormal Behavior	3	0	0	3
NUR 216	Maternity Nursing	4	0	12	8
	or			OR	
NUR 218	Pediatric Nursing	4	0	12	8
		10	0	12	14

#### SEVENTH QUARTER

ECO 108	Consumer Economics	3	0	0	3
	Elective	3	0	0	3
NUR 220	Medical-Surgical Nursing V and (½ Quarter)	4	0	12	4
	AND				
NUR 224	Psychiatric Nursing or (½ Quarter)	4	0	12	4
	OR				
**NUR 222	Medical-Surgical Nursing VI (½ Quarter)	4	0	12	4
		10	0	12	14

#### \*\*\*EIGHTH QUARTER (Short Session)

NUR 224	Psychiatric Nursing (½ Quarter)	4	0	12	4
	or			OR	
NUR 222	Medical-Surgical Nursing VI (½ Quarter)	4	0	12	4
		4	0	12	4

\*CPR certification by the American Heart Association is required for graduation. The course will be offered during the fifth quarter and current certification must be maintained for the duration of the program.

\*\*Some students will be enrolled in Medical-Surgical Nursing VI during the 7th quarter and others will complete it during the 8th quarter. Some students will be enrolled in Psychiatric Nursing during the 7th quarter and others in the 8th quarter.

\*\*\*This is a short session of five weeks.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

2100 Silas Creek Parkway  
Winston-Salem, N.C. 27103  
Telephone: 919-723-0371

**Forsyth Technical Institute**  
An Equal Opportunity Educational Institution



**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BIO 107 Anatomy and Physiology I** 3 2 0 4  
 An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II** 3 2 0 4  
 A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 111 Microbiology** 3 2 0 4  
 This is a one-quarter course designed to provide an understanding of microbiological principles and applications. Emphasis is placed on microbial classifications, structure and function, host-parasite relationships, and relations to man. Laboratory sessions are concerned with principles of identification, slide techniques, culture methods, and sterile procedures. Prerequisite: None.

**ECO 108 Consumer Economics** 3 0 0 3  
 Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources and to understand better the economy in which he lives. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
 The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**NUR 119 Pharmacology** 2 2 0 3  
 This course is designed to prepare the students for safe administration of medications. Emphasis is placed on the mathematics of drugs and solutions, methods of administration, and the general classification of pharmacological agents. Knowledge gained in Pharmacology will be incorporated into the nursing process as it applies to nursing care. Instructions in this area will be implemented through the use of self-study, group activities, AV aids, demonstrations, laboratory practice and lecture. Evaluations will measure the students' ability to meet course objectives through the use of testing, special assignments and laboratory experience. Planned laboratory experiences are designed to teach the students correct medication administration techniques. Prerequisite: None. Corequisite: NUR 120.

**NUR 120 Medical-Surgical Nursing I** 4 2 6 7  
 This course provides the students an orientation to the body systems approach to nursing care, the nursing process and an orientation to the field of health. Included are an exploration of the events which have influenced the practice of nursing, the role of the nurse and the way in which the community provides health services. Planned clinical experience is designed to teach the student basic nursing skills and provide introductory experience. Emphasis is placed on providing basic physical care and beginning to meet the psychosocial needs of the patient. Instruction in these areas will be implemented through the use of self study, group activities, AV aids, demonstrations and laboratory practice, community resources, lecture, and planned clinical experience. Evaluations will measure the students' ability to meet course objectives through the use of testing and special assignments and clinical experience. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisite: None. Corequisite: NUR 119.

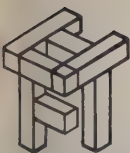


**NUR 122 Medical-Surgical Nursing II** 4 2 6 7  
 This course emphasizes the use of the nursing process in the study of the gastrointestinal and renal systems. It stresses assessment, intervention and evaluation for patients with common problems of the gastrointestinal or renal systems. Included is an introduction to fluids and electrolytes, oncologic nursing, and care of the dying patient. Planned clinical experience will concentrate on giving basic physical care, administering medications, using basic communication techniques, and implementing health teaching. Evaluation will include the response of the patient to the nursing care and a self evaluation. Instruction in these areas will be implemented through the use of self study, group activities, A-V aids, demonstrations, laboratory practice, community resources lecture, and planned clinical experiences. Evaluations will measure the students' ability to meet course objectives through the use of testing, special assignments, nursing care plans and clinical experience. Satisfactory completion of the clinical components of the course is required in order to pass the course. Prerequisites: BIO 107; NUR 119, 120. Corequisite: None.

**NUR 124 Medical-Surgical Nursing III** 4 0 12 8  
 This course allows the student to continue the body system approach in utilizing the nursing process in giving nursing care. Special emphasis is placed on musculoskeletal and endocrine disorders in clinical practice as well as in theory. Instruction in these areas will be implemented through the use of self-study, group activities, A-V aids, demonstrations and laboratory practice, community resources, lectures, and planned clinical experience. Evaluations measure the students' ability to meet course objectives through the use of testing, special assignments, nursing care plans and clinical experience. Satisfactory completion of the clinical components of the course is required in order to pass the course. Prerequisites: NUR 119, 120, 122; BIO 107, 108; NUT 101. Corequisites: None.

**NUR 126 Medical-Surgical Nursing IV** 4 0 12 8  
 This course allows the student to continue the body system approach in utilizing the nursing process with special emphasis placed on respiratory and cardiovascular disorders in clinical practice as well as in theory. Instruction in these areas will be implemented through the use of self study, group activities, A-activities, A-V aids, demonstrations and laboratory practice, community resources lectures, and planned clinical practice. Evaluations will measure the students' ability to meet course objectives through the use of testing, special assignments, nursing care plans and clinical experiences. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124; NUT 101. Corequisite: None.



**NUR 216 Maternity Nursing****4 0 12 8**

The complete maternity cycle will be presented with emphasis on family-centered care. Content will be offered in the physiological and psychosocial development throughout the childbearing experience. Aspects of gynecology relative to child birth will be introduced. This course will provide concepts regarding the roles of families and nurses in today's changing society. This course is also designed to give the students an opportunity to apply knowledge and skills gained in the care of the child bearing family. An opportunity will be given for the student to utilize the nursing process in planning care for families during the child bearing process. Health teaching will be emphasized. Instruction in this area will be implemented through the use of self-study, group activities, nursing care plans, audio-visual aids, community resources, lectures, and planned patient assignments in the prenatal clinic, labor and delivery room, post-partum unit, and the newborn nursery.

Evaluations will measure the students' ability to meet the course objectives through the use of testing, special assignments and planned clinical experience. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124, 126; NUT 101; PSY 110; Corequisite: None.

**NUR 218 Pediatric Nursing****4 0 12 8**

This course is designed to provide the student with the opportunity to study disease conditions of the body systems seen commonly in children. It will also allow the student to apply this knowledge and previously learned scientific principles to the nursing care of children in a clinical setting. The nursing process will be the tool used to determine and meet the needs of the pediatric patient with specific problems or disease entities. Included are an exploration of the history of Pediatric Nursing trends in health care in children and a study of current child care laws. Emphasis will be placed upon the nurses' role in meeting the needs of a child according to his/her stage of growth and development as well as responding supportively to the family during their child's illness. The preventive aspects as well as the available community resources will be discussed both in the classroom and the clinical areas.

Instruction in these areas will be implemented through the use of self-study, group activities, nursing care plans, audio-visual aids, community resources, lectures, and planned patient assignments in the hospitals and clinics.

Evaluations measure the students' ability to meet the course objectives through the use of testing, nursing care plans, special assignments and planned clinical experience. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124, 126; NUT 101. Corequisites: None.

**NUR 220 Medical-Surgical Nursing V****4 0 12 4**

This course provides the students an opportunity to integrate previously acquired knowledge of body systems and the nursing process with specific emphasis on the neurological field. Planned clinical experience is designed with emphasis on application of this integration as exhibited by individual patient needs. Instructions in this area will be implemented through the use of self study, group activities, AV aids, demonstrations and laboratory practice, community resources and lectures.

Evaluations will measure the students' ability to meet course objectives through the use of testing, nursing care plans, audio-visual aids, special assignments and planned clinical experience. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124, 126; NUT 101. Corequisite: None.

**NUR 222 Medical-Surgical Nursing VI****4 0 12 4**

This final course in medical-surgical nursing provides the students an opportunity to assimilate the previously acquired knowledge of body systems and the nursing process and to apply it to individualized nursing care. The areas of focus are the dermatological and hematological systems. Planned clinical experience will also be designed to help the student adjust to the realities of employment as a graduate.

Instruction in this will be implemented through the use of self-study, group activities, AV aids, demonstrations and laboratory practices, community resources and lectures.

Evaluations will measure the students' ability to meet course objectives through the use of testing, nursing care plans, special assignments and planned clinical experience. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124, 126, 220; NUT 101. Corequisite: None.

**NUR 224 Psychiatric Nursing****4 0 12 4**

This course is designed to provide a foundation of knowledge from which the student will identify elements of health behavior as well as maladaptive behaviors of the psychosocial system that are indicative of psychiatric disorders. Emphasis is placed on continued development of the students' therapeutic nurse interpersonal relationship as it is related to assisting the psychologically distressed person. The history, current treatment modalities, the role of the nurse, legal aspects, and psycho-dynamics of behavior disorders will be stressed.

The student will be introduced to various techniques and skills utilized in assisting the person the psychiatric disorders to improve his sense of well-being and restore his psychological equilibrium.

Instruction in these areas will be implemented through the use of self-study, group activities, AV aids, demonstrations in clinical practice, community resources, lectures, and process recordings.

Evaluations of the students' ability to meet course objectives will be measured through the use of testing, special assignments and clinical experiences. Satisfactory completion of the clinical component of the course is required in order to pass the course. Prerequisites: BIO 107, 108, 111; NUR 119, 120, 122, 124, 126, 220; NUT 101; PSY 101, 110, 111; SOC 103. Corequisite: None.

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**Winston-Salem, N.C. 27103**



**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0  
 This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardio-pulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**NUT 101 General Nutrition** 3 0 0 3  
 Basic principles of human nutrition with emphasis on the nutrients and factors which affect their utilization in the human body are studied. Prerequisite: None.

**PSY 101 Psychology** 3 0 0 3  
 This course is geared to study the principles of human behavior with reference to thinking, learning, memory, perception, emotional life, individual differences in intelligence, aptitude, and personality, the scientific nature of psychological investigations and research findings related to daily life. Prerequisite: None.

**PSY 110 Lifespan Psychology** 3 0 0 3  
 This course will deal with the human life span from conception through old age. It is intended to give the student a thorough grounding in the basic principles of developmental psychology. Emphasis will be placed on the theories of Erikson, Piaget, and Havighurst. Physiological and psychological critical periods in the development of the individual will be identified and their implications explored. Special attention will be given to the stress periods of childhood, adolescence, middle age, and old age. Prerequisite: None.

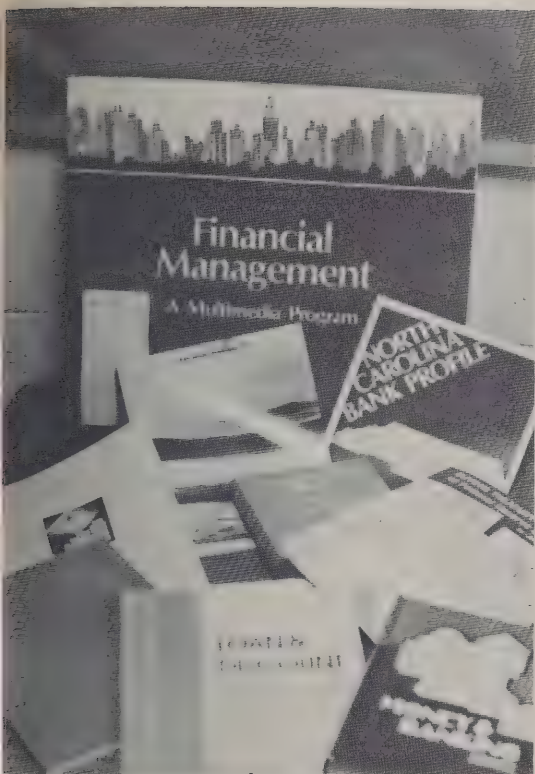
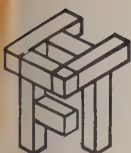
**PSY 111 Abnormal Behavior** 3 0 0 0  
 This course offers an introduction to behavior pathology. Students will be given a background in the etiology, diagnosis, and prognosis of various kinds of abnormal behavior. Topics in the study will include neurosis, psychosis, addiction, suicide, character disorders, psychosomatic reactions, childhood disorders, and geriatric disabilities. Prerequisite: PSY 101.

**SOC 103 Sociology** 3 0 0 0  
 The student will examine the social environment in which personality matures, and analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.

**SOC 020 Academic Survival Skills** 2 0 0 0  
 This course is designed to encourage the student to accept the responsibility for his/her own academic success through identifying learning styles and planning effective learning strategies. Reading skills, listening skills, note taking skills, and test taking skills will be explored. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval.





## BANKING AND FINANCE T-112

The Banking and Finance program is intended to provide inservice banking employees with professional preparation in the banking industry for the purpose of improving job performance as well as to prepare students for management positions. The program is also available to students who wish to pursue a career in banks, savings and loan associations, or other financial institutions. By completing the various requirements shown in the detailed curriculum listing, the student can earn AIB credit as well as earning the Associate in Applied Science Degree.

Total credit hours: 112

### Curriculum By Quarters

Course Title		Hours Per Week				Course Title		Hours Per Week			
		C	L	P	QH			C	L	P	QH
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
ENG 100	Oral Communication	3	0	0	3	ENG 205	Business Report Writing	3	0	0	3
BUS 101	Introduction to Business	5	0	0	5	PSY 206	Applied Psychology	3	0	0	3
BUS 109	Business Mathematics	5	0	0	5	AIB 205	Bank Management	4	0	0	4
BUS 102	Typewriting I	2	0	3	3	BUS 232	Sales Development	3	0	0	3
		15	0	3	16		Elective*	3	0	0	3
<b>SECOND QUARTER</b>								16	0	0	16
ENG 101	Introduction to Written Communication	3	0	0	3	<b>SIXTH QUARTER</b>					
AIB 202	Principles of Banking	4	0	0	4	ENG 206	Business Communications	3	0	0	3
BUS 120	Accounting I	4	0	3	5	AIB 233	Analysis of Financial Statements	4	0	0	4
BUS 110	Office Machines I	2	0	3	3	BUS 209	Real Estate Finance	5	0	0	5
		13	0	6	15	AIB 203	Bank Investments	4	0	0	4
<b>THIRD QUARTER</b>								16	0	0	16
ENG 102	Composition	3	0	0	3	<b>SEVENTH QUARTER</b>					
BUS 115	Business Law I	3	0	0	3	AIB 239	Marketing for Bankers	4	0	0	4
BUS 121	Accounting II	4	0	3	5	AIB 235	Loan and Discount	3	0	0	3
ECO 102	Economics I	3	0	0	3	BUS 272	Principles of Supervision	3	0	0	3
AIB 209	Installment Credit	4	0	0	4		Elective*	3	0	0	3
		17	0	3	18			13	0	0	13
<b>FOURTH QUARTER</b>											
BUS 116	Business Law II	3	0	0	3						
EDP 101	Principles of Business Data Processing	3	2	0	4						
AIB 231	Savings and Time Deposit	4	0	0	4						
AIB 210	Money and Banking	4	0	0	4						
ECO 104	Economics II	3	0	0	3						
		17	2	0	18						

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

# Forsyth Technical Institute

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### Winston-Salem, N.C. 27103

#### AIB 202 Principles of Banking 4 0 0 4

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire a broad and operational perspective. It reflects the radical changes in banking policy and practice which have occurred in recent years. Topics covered are banks and the monetary system, negotiable instruments, the relationship of the commercial bank to its depositors, types of bank accounts, the deposit function, the payments function, bank loans and investments, other banking services (trust, international, and safe deposit), bank accounting and marketing, external and internal controls, and the public service obligation of banks.

#### AIB 203 Bank Investments 4 0 0 4

AIB's bank investments course covers the sources and use of bank funds and the place of investment in the overall scheme of bank operations. Especially important are the relationship of investments to business and the unique functions, advantages, and purpose served by a wide range of securities. Investment terminology is covered in detail.

#### AIB 205 Bank Management 4 0 0 4

This course presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. It should be noted that the course is not one of personnel management, but rather of business management. It touches on objectives, planning, structure, control, and the interrelationship of various bank departments. Since case study is becoming well established as an effective management learning technique, the text also uses illustrative cases.

#### AIB 209 Installment Credit 4 0 0 4

This modular course emphasizes the pragmatic "how-to" details of Installment Credit. Topics covered are principles of credit evaluation, open-end credit, marketing bank services, collection policies and procedures, legal aspects, financial statement analysis, direct and indirect installment lending, leasing and other special situations, installment credit department management, insurance, and rate structure and yields.

#### AIB 210 Money and Banking 4 0 0 4

This course presents the basic economic principles most closely related to the subject of money and banking in a context of topics of interest to present and prospective bank management. The book stresses the practical application of the economics of money and banking to the individual bank. Some of the subjects covered include structure of the commercial banking system; the nature and functions of money; banks and the money supply; cash assets and liquidity management; bank investments, loans, earnings, and capital; the Federal Reserve System and its policies and operations; Treasury Department operations; and the changing international monetary system.

#### AIB 231 Savings and Time Deposit 4 0 0 4

This course reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. It begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flow from income to capital investment. Also covered are interest rates, types of savings accounts, and the management of savings institutions (asset management, operations and control, supervision, liquidity, and marketing).

#### AIB 233 Analysis of Financial Statements 4 0 0 4

This course is divided into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis. (It should be emphasized, however, that Analyzing Financial Statements is an advanced course and difficult for students with little background in accounting.) The second section of the course covers goals, methods, and tools of analysis, analysis of profit and loss, accounts receivable, inventories, and balance sheets; the relationship of balance sheet accounts to sales; and to projected statements and cash budgets. Prerequisite: BUS 120.

#### AIB 235 Loan and Discount 3 0 0 3

This course presents the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure. The course uses programmed instruction and several simulation exercises.

#### AIB 239 Marketing for Bankers 4 0 0 4

This course presents marketing as a broad concept, far more complex than public relations, advertising, and personal selling, which, its authors say, are important components of marketing but are not individually or collectively, the equivalent of marketing. It is designed for bankers who are unacquainted with marketing and deals with concepts and philosophies of marketing, marketing information, research, and target; the marketing mix (product strategy, distribution strategy, advertising and sales promotion, personal selling, and pricing strategy); and the methods of marketing planning.

#### BUS 101 Introduction to Business 5 0 0 5

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

#### BUS 102 Typewriting I 2 0 3 3

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

#### BUS 109 Business Mathematics 5 0 0 5

Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

#### BUS 110 Office Machines I 2 0 3 3

This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

#### BUS 115 Business Law I 3 0 0

A general course designed to acquaint the student with certain fundamental principles of business law. Includes contracts, negotiable instruments, and agency. Prerequisite: None.

#### BUS 116 Business Law II 3 0 0

Includes the study of laws pertaining to bailment, sales, risk-bearing, partnership, corporation, mortgages, and property rights. Prerequisites: BUS 115.

#### BUS 120 Accounting I 4 0 0

The study of the principles, techniques and tools of the accounting process. Includes collecting, summarizing, analyzing and reporting of financial information. Emphasis on application of the principles learned. Prerequisite or Co-requisite: BUS 109, MAT 111.

#### BUS 121 Accounting II 4 0 0

Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

#### BUS 209 Real Estate Finance 5 0 0

A study of real estate finance including an analysis of financial institutions, techniques and instruments necessary in real estate. Topics include the sources of funds, types of mortgages, role of government agencies, interest rates, loan costs, closings and competition in the money market.

#### BUS 232 Sales Development 3 0 0

A study of retail, wholesale and specialty selling. Emphasizes the mastering and application of the fundamentals of selling. Preparation for and execution of sales demonstrations required. Prerequisite: None.

#### BUS 272 Principles of Supervision 3 0 0

A study of the basic responsibilities of the supervisor and his relationship to supervising subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

#### ECO 102 Economics I 3 0 0

A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

#### ECO 104 Economics II 3 0 0

A further study into the function of the United States' economy as well as a look at world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payment, economic development, and comparative economic systems. Prerequisite: ECO 102.

#### EDP 101 Principles of Business Data Processing 3 2 0

An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

#### ENG 100 Oral Communication 3 0 0

The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

#### ENG 101 Introduction to Written Communication 3 0 0

The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

#### ENG 102 Composition 3 0 0

This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

#### ENG 205 Business Report Writing 3 0 0

The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

#### ENG 206 Business Communications 3 0 0

This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

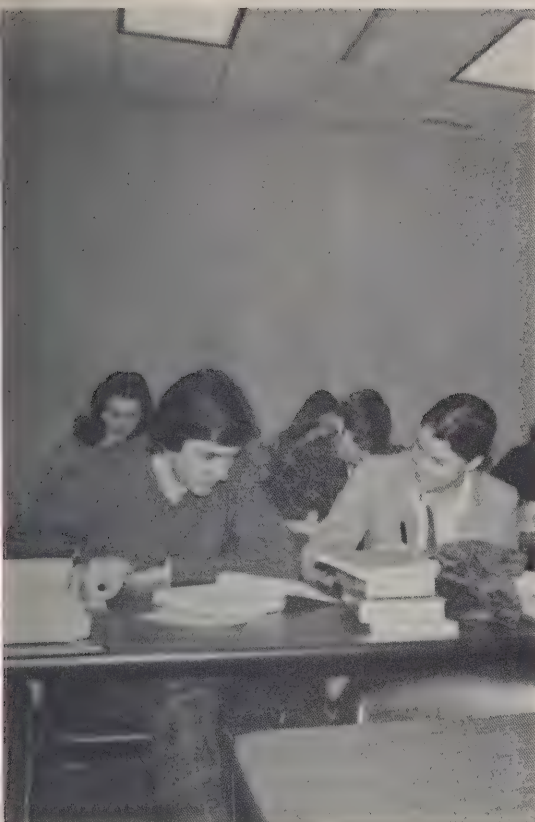
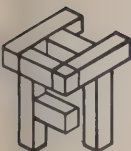
#### PSY 206 Applied Psychology 3 0 0

A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated include employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

#### ELECTIVES

Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval.





## BUSINESS ADMINISTRATION T-018

The distribution of goods has been generally recognized as the largest single problem in business. Techniques for mass production of goods have been perfected, and better ways to get these products to the consumer are needed.

The Business Administration program is designed to (1) develop the student's knowledge of the fundamentals of marketing and distribution and to provide him with an understanding of organization and management, (2) develop skills in selling, advertising, and finance and (3) familiarize the student with growth problems confronting business today.

Jobs available which graduates could fill are in the areas of retailing, wholesaling, industrial marketing, finance, and service industries. Service performed by graduates include sales, advertising, merchandising, buying, credit and personnel.

Total credit hour: 103

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG 100	Oral Communication		3	0	0	3
BUS 102	Typewriting I		2	0	3	3
BUS 109	Business Mathematics		5	0	0	5
BUS 101	Introduction to Business		5	0	0	5
			15	0	3	16
<b>SECOND QUARTER</b>						
ENG 101	Introduction to Written Communication		3	0	0	3
BUS 120	Accounting I		4	0	3	5
ECON 102	Economics I		3	0	0	3
BUS 110	Office Machines I		2	0	3	3
			12	0	6	14
<b>THIRD QUARTER</b>						
ENG 102	Composition		3	0	0	3
BUS 115	Business Law I		3	0	0	3
BUS 121	Accounting II		4	0	3	5
ECON 104	Economics II		3	0	0	3
			13	0	3	14
<b>FOURTH QUARTER</b>						
BUS 116	Business Law II		3	0	0	3
DP 101	Principles of Business Data Processing		3	2	0	4
BUS 229	Taxes		2	0	3	3
BUS 239	Marketing		5	0	0	5
			13	2	3	15

### Course Title

Hours Per Week  
C L P QH

#### FIFTH QUARTER

ENG 205	Business Report Writing	3	0	0	3
BUS 128	Personal Financial Management	5	0	0	5
BUS 232	Sales Development	3	0	0	3
PSY 206	Applied Psychology	3	0	0	3
		14	0	0	14

#### SIXTH QUARTER

ENG 206	Business Communications	3	0	0	3
BUS 243	Advertising	4	0	0	4
BUS	Electives	6	0	0	6
		13	0	0	13

#### SEVENTH QUARTER

	Elective*	3	0	0	3
BUS 235	Business Management	5	0	0	5
BUS 272	Principles of Supervision	3	0	0	3
BUS	Electives	6	0	0	6
		17	0	0	17

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

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**BUS 101 Introduction to Business 5 0 0 5**

A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

**BUS 102 Typewriting I 2 0 3 3**

Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 109 Business Mathematics 5 0 0 5**

Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I 2 0 3 3**

This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

**BUS 115 Business Law I 3 0 0 3**

A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 116 Business Law II 3 0 0 3**

Includes the study of laws pertaining to bailment, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115.

**BUS 120 Accounting I 4 0 3 5**

The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite: None.

**BUS 121 Accounting II 4 0 3 5**

Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 128 Personal Financial Management 5 0 0 5**

This course covers the basic concepts of personal finance. The student will become familiar with establishing financial objectives, investment risks, financial institutions, investment alternatives, making investment decisions and estate planning. Prerequisite: None.

**BUS 229 Taxes 2 0 3 3**

A study and application of federal and state taxes as applied to individuals, partnerships, and corporations. Emphasizes the preparation of individual income tax returns. Prerequisite: None.

**BUS 232 Sales Development 3 0 0 3**

A study of retail, wholesale and specialty selling. Emphasizes the mastering and the application of the fundamentals of selling. Preparation for and execution of sales demonstration required. Prerequisite: None.

**BUS 235 Business Management 5 0 0 5**

An introduction to the concepts of business and other organizational management. Analysis and practice of management procedures. Includes planning and decision-making, organizational structures and behavior, leadership and motivation, and resource control. Prerequisite: None.

**BUS 239 Marketing 5 0 0 5**

A study of the principles and problems of marketing goods and services in a free enterprise economy. Emphasizes product selection and development, promotion, channels of distribution and pricing. Prerequisite: None.

**BUS 243 Advertising 4 0 0 4**

The study of the methods and techniques used by ad men and agencies to persuade the public to buy. Topics covered are market research, selection of media, and evaluation and testing of ad effectiveness. Theory and practice in writing and designing ad copy included in class activity. Prerequisite: None.

**BUS 272 Principles of Supervision 3 0 0**

A study of the basic responsibilities of the supervisor and his relationship to supervise subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**ECO 102 Economics I 3 0 0**

A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ECO 104 Economics II 3 0 0**

A further study into the function of the United States' economy as well as a look in world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payment, economic development, and comparative economic systems. Prerequisite: ECO 102.

**EDP 101 Principles of Business Data Processing 3 2 0**

An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**ENG 100 Oral Communication 3 0 0**

The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication 3 0 0**

The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition 3 0 0**

This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing 3 0 0**

The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are the major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

**ENG 206 Business Communications 3 0 0**

This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

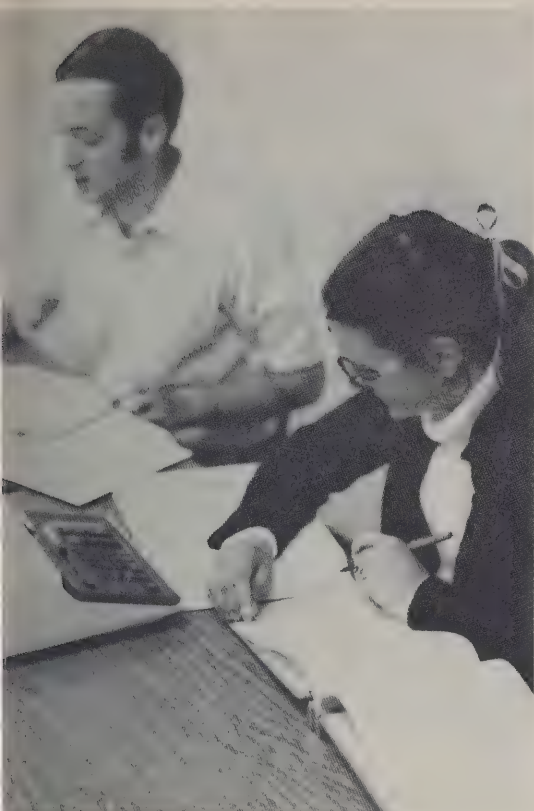
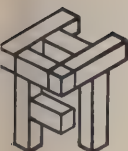
**PSY 206 Applied Psychology 3 0 0**

A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**ELECTIVES**

Electives are to be selected by the student and his advisor. Those elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval. Business electives should be selected from the courses offered within the curriculum of the Business Technologies Department, subject to advisor approval.





## BUSINESS ADMINISTRATION/ACCOUNTING OPTION T-018

Accounting is one of the fastest growing employment fields in America today. These opportunities result from the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained people in the area of accounting to help managers keep track of a firm's operation. The Accounting curriculum is designed to fill this need by offering students the necessary accounting theories and skills for entry into the accounting profession.

The Accounting curriculum is designed to give the student an understanding of the principles of organization and management in business operations, an understanding of the statements, and skill in effective communication for business.

Total credit hours: 108

### Curriculum By Quarters

Course Title		Hours Per Week				Course Title		Hours Per Week			
		C	L	P	QH			C	L	P	QH
<b>FIRST QUARTER</b>						<b>FIFTH QUARTER</b>					
ENG 100	Oral Communication	3	0	0	3	ENG 205	Business Report Writing	3	0	0	3
BUS 120	Accounting I	4	0	3	5	BUS 222	Intermediate Accounting II	5	0	0	5
BUS 109	Business Mathematics	5	0	0	5	EDP 120	Introduction to Computer Programming	3	2	0	4
BUS 102	Typewriting I	2	0	3	3	BUS 115	Business Law I	3	0	0	3
		14	0	6	16			14	2	0	15
<b>SECOND QUARTER</b>						<b>SIXTH QUARTER</b>					
ENG 101	Introduction to Written Communication	3	0	0	3	ENG 206	Business Communications	3	0	0	3
BUS 121	Accounting II	4	0	3	5	BUS 227	Intermediate Accounting III	2	0	3	3
BUS 229	Taxes	2	0	3	3	BUS 225	Managerial Cost Accounting I	2	0	3	3
BUS 110	Office Machines I	2	0	3	3	BUS 116	Business Law II	3	0	0	3
		11	0	9	14			10	0	6	12
<b>THIRD QUARTER</b>						<b>SEVENTH QUARTER</b>					
ENG 102	Composition	3	0	0	3	BUS 226	Managerial Cost Accounting II	2	0	3	3
BUS 122	Accounting III	4	0	3	5	BUS 223	Governmental Accounting	2	0	3	3
ECO 102	Economics I	3	0	0	3	BUS 269	Auditing	2	0	3	3
BUS 230	Advanced Taxes	2	0	3	3	BUS 272	Principles of Supervision	3	0	0	3
BUS 210	Business Statistics	5	0	0	5		Elective*	3	0	0	3
		17	0	6	19			12	0	9	15
<b>FOURTH QUARTER</b>											
EDP 101	Principles of Business Data Processing	3	2	0	4						
BUS 221	Intermediate Accounting I	5	0	0	5						
ECO 104	Economics II	3	0	0	3						
BUS 123	Business Finance	5	0	0	5						
		16	2	0	17						

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 102 Typewriting I** 2 0 3 3  
 Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 109 Business Mathematics** 5 0 0 5  
 Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I** 2 0 3 3  
 This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

**BUS 115 Business Law I** 3 0 0 3  
 A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 116 Business Law II** 3 0 0 3  
 Includes the study of laws pertaining to bailment, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115.

**BUS 120 Accounting I** 4 0 3 5  
 The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite: None.

**BUS 121 Accounting II** 4 0 3 5  
 Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 122 Accounting III** 4 0 3 5  
 Utilizes and expands the principles and concepts set forth in Accounting I and Accounting II. Attention is given to manufacturing and job order cost systems, budgetary control and standard cost systems. Additional attention is given to the decision making process as determined from cost and revenue relationships, management reports, changes in financial position, consolidated statements, and financial statements. Prerequisite: BUS 121.

**BUS 123 Business Finance I** 5 0 0 5  
 A study of the principles and problems of financing business firms. Topics include source and use of funds, cost of capital, dividends, leasing, financial statement analysis, and mergers. Prerequisite: BUS 122.

**BUS 210 Business Statistics** 5 0 0 5  
 This course is designed to introduce students to basic concepts and methods of statistics. Students are taught to summarize data and then employ a decision making process based on statistical inference. Prerequisite: None.

**BUS 221 Intermediate Accounting I** 5 0 0 5  
 Thorough treatment of the field of general accounting providing foundation for specialized studies that follow. The course includes among other aspects, the framework of accounting, the balance sheet, income and retained earnings statements, cash and temporary investments, receivables and inventories. Prerequisite: BUS 122.

**BUS 222 Intermediate Accounting II** 5 0 0 5  
 Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long-term liabilities, paid-in capital, retained earnings, and special analytical processes. Prerequisite: BUS 221.

**BUS 223 Governmental Accounting** 2 0 3 3  
 A study and application of principles of accounting and budgeting as they apply to municipal, state, and federal governmental units. Prerequisite: BUS 221.

**BUS 225 Managerial Cost Accounting I** 2 0 3 3  
 The study of principles, techniques, and tools of the cost accounting processes within the job cost and process cost system. Emphasis on application of principles learned. Prerequisite: BUS 122.

**BUS 226 Managerial Cost Accounting II** 2 0 3 3  
 A continuation of Cost Accounting I, with emphasis on standard cost principles and procedures; selling and distribution cost; direct costs; budgets and executive use of cost figures. Prerequisite: BUS 225.

**BUS 227 Intermediate Accounting III** 2 0 3 3  
 A study of advanced principles and practices. Special emphasis is placed on the development of worksheet techniques for solution of problems. Accounting procedures related to partnerships, branch accounting and parent-subsidiary relationships are studied in depth. Current publications from professional journals are studied and discussed. Prerequisite: BUS 222.

**BUS 229 Taxes** 2 0 3  
 A study and application of federal and state taxes as applied to individuals, partnerships, and corporations. Emphasizes the preparation of individual income tax returns. Prerequisite: None.

**BUS 230 Advanced Taxes** 2 0 3  
 A study and application of federal and state taxes as applied to individuals, partnerships, corporations, "Subchapter S" corporations and estate and gift. Prerequisite: BUS 229.

**BUS 269 Auditing** 2 0 3 3  
 A study of the theory and practices of auditing, including professional standards and rules of conduct. Emphasis is placed on specific techniques of auditing various balance sheet accounts. Comparative analysis using rapid calculation procedures will be stressed. Study also includes detailed audits, internal auditing and internal control. Current trends in statement preparation are reviewed. Prerequisite: BUS 222.

**BUS 272 Principles of Supervision** 3 0 0 3  
 A study of the basic responsibilities of the supervisor and his relationship to supervisors, subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**ECO 102 Economics I** 3 0 0 3  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ECO 104 Economics II** 3 0 0 3  
 A further study into the function of the United States' economy as well as a look into world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payments, economic development, and comparative economic systems. Prerequisite: ECO 102.

**EDP 101 Principles of Business Data Processing** 3 2 0 4  
 An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**EDP 120 Introduction of Computer Program** 3 2 0 4  
 A non-technical introduction to the COBOL programming language. Emphasis will be placed on how COBOL is used in business to automate business procedures. Laboratory exercises will be used to develop COBOL programs that can solve business problems. Prerequisite: EDP 101.

**ENG 100 Oral Communication** 3 0 0 3  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing** 3 0 0 3  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are the major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

**ENG 206 Business Communications** 3 0 0 3  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval. Business electives should be selected from the courses offered within the curricula of the Business Technologies Department, subject to advisory approval.





## EARLY CHILDHOOD SPECIALIST T-073

Early childhood specialists are concerned with providing for infants and young children in a program which will promote the optimal development of each child. The specialist must understand and be able to (1) meet the physical and nutritional needs of pre-school children; (2) provide activities which stimulate intellectual, emotional and social growth of children; (3) guide children in the formation of acceptable habits and attitudes; and (4) assist children in their learning to communicate effectively with others. In addition, the early childhood education specialist must be able to work effectively with parents and, where necessary, provide guidance in improving the child's home experience.

This curriculum is designed to provide the educational preparation of individuals to serve in a variety of roles in facilities concerned with the care and development of infants and young children. It also provides individuals with the knowledge, understanding and skills needed to work effectively with pre-school children in various stages of development.

The program is built around the developmental approach which aims for the optimal development of each child. As staffing requirements of both day care and residential facilities increase, graduates of this curriculum should find many different types of jobs available.

Total credit hours: 115



Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
100 Oral Communications	3	0	0	3
102 General Psychology	5	0	0	5
101 Child Growth and Development	6	0	0	6
101 Personal Health and Hygiene	3	0	0	3
	17	0	0	17
<b>SECOND QUARTER</b>				
101 Introduction to Written Communication	3	0	0	3
105 Human Growth and Development: Prenatal and Infancy	3	0	0	3
102 Programs for Young Children	4	2	0	5
107 Communicating with Young Children	3	2	0	4
112 Personality Development	3	0	0	3
	16	4	0	18
<b>THIRD QUARTER</b>				
101 General Science	3	0	0	3
102 Composition	3	0	0	3
205 Child Psychology	3	0	0	3
103 Working with Young Children	4	0	10	5
102 Nutrition for Young Children	3	2	0	4
	16	2	10	18
<b>FOURTH QUARTER</b>				
207 Educational Report Writing	3	0	0	3
112 Language Arts in Early Childhood	3	0	0	3
108 Social Studies in Early Childhood	3	0	0	3
104 Art for the Young Child	3	0	0	3
110 Instructional Media and Resources	2	0	3	3
113 Health and Safety for Young Children	3	2	0	4
	17	2	3	19

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIFTH QUARTER</b>					
SOC 103	Sociology	3	0	0	3
ENG 116	Children's Literature	3	0	0	3
EDU 105	Music and Creative Movement for Young Children	3	0	0	3
EDU 106	Activities for Young Children—Science and Math	5	0	10	6
		14	0	10	15
<b>SIXTH QUARTER</b>					
EDU 203	The Exceptional Child	3	2	0	4
EDU 202	Seminar Co-op in Early Childhood	5	0	10	6
SOC 105	Families in the American Culture	3	0	0	3
EDU 109	Physical Activities: Games for Young Children	2	2	0	3
		13	4	10	16
<b>SEVENTH QUARTER</b>					
EDU 206	Special Problems	3	0	0	3
EDU 211	Practice Teaching	4	0	20	6
EDU 204	Parent Education	3	0	0	3
		10	0	20	12

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

# Forsyth Technical Institute

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**EDU 101 Child Growth and Development** 6 0 0 6  
The study of the mental and physical growth of the child from birth through adolescence. Through a brief review of recent studies in child development, the student will gain knowledge of frequently used educational research methods and research terminology. Prerequisite: None.

**EDU 102 Programs for Young Children** 4 2 0 5  
A comparative study of traditional current and innovative preschool programs. The laboratory experience provides opportunities for the students to observe and record the growth and behavior of young children. Prerequisite: EDU 101.

**EDU 103 Working with Young Children** 4 0 10 5  
Case presentations, films observations, and group discussions are utilized to study characteristic behaviors of each level of development and to derive guidelines for promoting desirable behaviors and for coping with undesirable behaviors. Laboratory experiences will provide opportunities to develop observation skills, effective techniques, and beginning skill in adapting activities to the needs of individual children. Through coordination with PSY, theories from behavioral science are identified as the foundation of techniques for working with young children. Prerequisite: EDU 102.

**EDU 104 Art for Young Children** 3 0 0 3  
A study of the art of young children and the development of techniques of working with young children to encourage creative expression through a variety of media. Corequisite: EDU 103.

**EDU 105 Music and Creative Movement for Young Children** 3 0 0 3  
An exploration of a wide variety of musical activities for young children with special emphasis on techniques of selecting activities appropriate to the age level and the individual needs of the children. Prerequisite: EDU 103.

**EDU 106 Activities for Young Children: Science and Mathematics** 5 0 10 6  
Individual and group exploration of activities and materials for developing mathematics and science experiences for preschool children on which would permit the children to learn through manipulation, experimentation, and discovery. The laboratory experience provides opportunities to implement activities with children. Prerequisite: EDU 112.

**EDU 107 Communicating with Young Children** 3 2 0 4  
A course designed to improve the verbal and nonverbal communication of students working with small children in the child care centers. Special emphasis is on voice and diction improvement (pronunciation, articulation, audibility, rate, pitch, and usage) with extensive use of cassette and video-tape recordings. Emphasis is also placed upon developing a student's confidence in using a variety of audio-visual equipment (tape recorder, 16mm projector, filmstrip projector, record player, etc.) in preparation for a class activity such as telling or reading a story. Each student will be given a laboratory assignment for communication experiences with groups of small children. Prerequisite: ENG 100.

**EDU 108 Social Studies in Early Childhood** 3 0 0 3  
A study of the social studies phenomena that are of interest to young children. Classroom experiences will be designed to teach the student to use social studies as an integral component of the overall program for young children. Prerequisite: None.

**EDU 109 Physical Activities: Games for Young Children** 2 2 0 3  
An exploration of activities for promoting optimal overall physical development of young children, with special emphasis on body movements (exercise, dance, and games). The lab time is devoted to implementing games with children. Prerequisite: None.

**EDU 110 Instructional Media and Resources** 2 0 3 3  
Survey of media and appropriate learning materials for young children. A study of the role of instructional media and resources in teaching and learning, and sources of free inexpensive material. Directed practicum time is used to construct and prepare appropriate teaching aids to use with children to help conceptual development. Prerequisites: EDU 101, EDU 102, EDU 103.

**EDU 112 Language Arts in Early Childhood** 3 0 0 3  
A comprehensive study of each facet of language arts with emphasis on techniques of designing activities and selecting materials to promote optimal overall development and to meet the specific needs of individual children. Prerequisite: None.

**EDU 113 Health and Safety for Young Children** 3 2 0 4  
A study to promote understanding of factors which influence physical and emotional health of infants and young children. Emphasis will be given to preventative measures such as designing a safe and stimulating outside play area. The course will embrace first aid techniques and allow for observation of children in play situations. The influence of child care workers on health and safety and on the teaching of health habits is emphasized. Prerequisite: None.

**EDU 202 Seminar Co-op in Early Childhood** 5 0 10 6  
Experience in a variety of child care settings to develop further skill in working with young children, in assisting with programming activities, and in adapting to the needs of individual children. Analysis of individual problems encountered in working with specific age groups. Prerequisite: EDU 106.

**EDU 203 The Exceptional Child** 3 2 0 4  
Study of children with developmental variations requiring modification in activities. Consideration is given to recognition of problems, community resources, and appropriate activities for the child with exceptional deviations in personality or physical development. Prerequisite: None.

**EDU 204 Parent Education** 3 0 0 3  
Study of ways parents can be involved in the child development center, of the purpose and value of home visitation, and of techniques for reporting child progress to parents. The role of the early childhood specialist in aiding parents in guidance of the child's development is emphasized. Each student will develop a series of programs appropriate for presentation to the parents of preschool children. Prerequisite: EDU 103.

**EDU 206 Special Problems** 3 0  
Directed study of a specialized area of early childhood appropriate to individual interests of students. Prerequisite: EDU 202.

**EDU 211 Practice Teaching** 4 0 2  
A study to give the student practice in the care of the young child. This course will the student more experiences in directing pre-school activities. Students spend a time block caring for and guiding young children. Opportunities to carry out plans of study will be allowed the student in this quarter. Prerequisite: Successful completion of all practicums. Permission of Department Chairman.

**ENG 100 Oral Communication** 3 0  
The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a research paper. Prerequisite: ENG 101.

**ENG 116 Children's Literature** 3 0  
A survey of literature for young children. The student will gain an appreciation awareness of a variety of types of literature to be presented to the child during preschool years. Prerequisite: EDU 112.

**ENG 207 Educational Report Writing** 3 0  
A written communication course stressing business letters, memos, reports, employment interviewing. Special emphasis will be on types of communication written in child care centers: anecdotal records, school newsletters, progress letters and request letters for conferences, accident reports, press releases, etc. In conjunction with the summer quarter courses (EDU 112 and EDU 110), each student will prepare a report on teacher-made materials as a project for both the English and education courses. Prerequisites: ENG 102, EDU 101, EDU 102, EDU 103.

**HEA 101 Personal Hygiene and Health** 3 0  
Study of influences on physical and mental health, individual practices which aid in maintaining good physical and mental health throughout the life span and responsibilities of those working with young children to maintain personal health and to serve as models for health practices. Prerequisite: None.

**NUT 102 Nutrition for Young Children** 3 2 0  
Study of basic nutrition, with emphasis on (1) methods of helping young children and their families learn nutritional concepts and (2) planning balanced diets for preschool children. Corequisite: EDU 103.

**PSY 102 General Psychology** 5 0 0  
A study of the various fields of psychology; the developmental process, motivation, emotion, frustration and adjustment, mental health, attention and perception, problem of group living. Attention is given to applications of these topics to problems of student self-understanding and adjustment to the demands of society. Prerequisite: None.

**PSY 105 Human Growth and Development: Prenatal and Infant** 3 0 0  
A detailed study of the developmental sequence of the prenatal and infant periods with emphasis on developmental influences and conditions necessary for optimal development of individuals. Prerequisite: PSY 102.

**PSY 112 Personality Development** 3 0 0  
Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasizes grooming and method of personality development. Prerequisite: None.

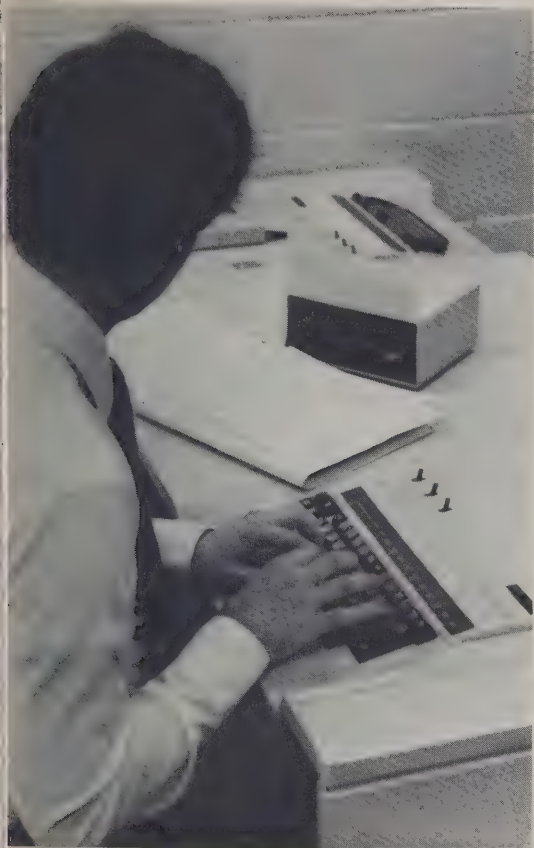
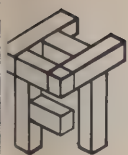
**PSY 205 Child Psychology** 3 0 0  
The objective of this course is to consider the significant phases of motor, cognitive, emotional, and social development of the child as these are influenced by genetic, cultural, and individual elements from the prenatal period to adolescence. Prerequisites: PSY 101 or PSY 102.

**SCI 101 General Science** 3 0 0  
A study of the basic concepts from biological, physical and natural sciences.

**SOC 103 Sociology** 3 0 0  
The student will examine the social environment in which personality matures, and analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.

**SOC 105 Families in the American Culture** 3 0 0  
Study of the family in the American culture, changing patterns in family roles, influence of socio-economic status on family relationships, factors associated with cultural deprivation, and the effects on children in such families. Prerequisite: SOC 103.





## ELECTRONIC DATA PROCESSING — BUSINESS T-022

Computers and information sciences have affected the lives of most Americans, and benefits derived from computers have caused increased demands for personnel in computer science. Because the training of programming personnel on the job is so expensive, there is an increasing demand for the qualified graduate in this area. Such a graduate must think analytically and logically; understand data processing concepts; possess programming skills; and have a knowledge of business, mathematics, accounting, and English sufficient to enable him to use his programming skills effectively.

The Electronic Data Processing program is designed to train students for employment as computer programmers in business. Students write and test programs in the languages used most widely in business today with particular emphasis placed on COBOL. Students program on up-to-date equipment of the type most used in industry. A study of computer systems and basic systems design and analysis is included.

Total credit hours: 108

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG 100	Oral Communication		3	0	0	3
MAT 111	EDP Mathematics I		5	0	0	5
EDP 100	Introduction to Data Processing		3	2	0	4
EDP 102	Logic and Decision Making		5	0	0	5
			16	2	0	17
<b>SECOND QUARTER</b>						
US 120	Accounting I		4	0	3	5
MAT 112	EDP Mathematics II		5	0	0	5
EDP 105	Assembly Language Programming I		5	2	0	6
			14	2	3	16
<b>THIRD QUARTER</b>						
ENG 101	Introduction to Written Communication		3	0	0	3
US 121	Accounting II		4	0	3	5
US 210	Business Statistics		5	0	0	5
EDP 110	COBOL Programming I		3	2	0	4
			15	2	3	17
<b>FOURTH QUARTER</b>						
ENG 102	Composition		3	0	0	3
	EDP Selection		3	2	0	4
EDP 111	COBOL Programming II		2	4	0	4
EDP 201	Computer Systems		3	2	0	4
			11	8	0	15

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIFTH QUARTER</b>						
ENG 206	Business Communications		3	0	0	3
EDP 112	COBOL Programming III		2	4	0	4
EDP 205	Systems Design and Analysis I		3	2	0	4
	EDP Selection		3	2	0	4
			11	8	0	15
<b>SIXTH QUARTER</b>						
	Sociology Elective		3	0	0	3
EDP 206	Systems Design and Analysis II		3	2	0	4
	EDP Selection		3	2	0	4
	Business Elective		3	0	0	3
			12	4	0	14
<b>SEVENTH QUARTER</b>						
ENG 205	Business Report Writing		3	0	0	3
EDP 210	Language Survey		2	0	0	2
EDP 220	Research Project		1	8	0	5
	EDP Selection		3	2	0	4
			9	10	0	14

EDP Selections will be specified by the Institution from the following list of courses:

EDP 106	Assembly Language Programming II	2	4	0	4
EDP 230	Introduction to FORTRAN	3	2	0	4
EDP 240	PL/1 Programming I	3	2	0	4
EDP 250	RPG Programming	3	2	0	4

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 120 Accounting I** 4 0 3 5  
 The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite or Co-requisite: BUS 109, MAT 101 or MAT 111.

**BUS 121 Accounting II** 4 0 3 5  
 Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 210 Business Statistics** 5 0 0 5  
 A course for business technology students dealing with statistical concepts encountered in industry. Included: frequency distribution, central tendency, price and quantity indexes, probability, normal and binomial distributions, z-scores, and hypothesis testing. Prerequisite: None.

**EDP 100 Introduction to Data Processing** 3 2 0 4  
 An introductory course for students in the data processing curriculum. A technical study of the history, terminology, equipment, and concepts of data processing. Laboratory exercises will be used to familiarize the student with data processing equipment and hypothetical programming languages. Prerequisite: None.

**EDP 102 Logic and Decision Making** 5 0 0 5  
 An introduction to symbolic logic and the application of logic to decision making and programming. Includes simple and compound logic statements, implications and equivalences, and flowcharting techniques. Laboratory exercises involving the development of truth tables and the translation of basic problems into flowcharts. Prerequisite: None.

**EDP 105 Assembly Language Programming I** 5 2 0 6  
 An introduction to the study of assembly language programming. Includes Assembly Language specifications, operations, and rules for writing source programs. Laboratory exercises devoted to developing program logic and writing Assembly Language programs to solve sample problems. Prerequisites: EDP 100, EDP 102. Co-requisite: MAT 111.

**EDP 106 Assembly Language Programming II** 2 4 0 4  
 A continuation of the study of Assembly Language programming. Covers more complex features of the language and more advanced programming techniques. Laboratory assignments devoted to developing program logic and writing Assembly Language programs to solve sample problems. Prerequisite: EDP 105.

**EDP 110 COBOL Programming I** 3 2 0 4  
 An introductory course in compiler language programming utilizing COBOL. Includes COBOL concept, components, structure, and basic instructions. Laboratory assignments stressing development of program logic and writing COBOL programs to solve sample problems. Prerequisites: EDP 100, EDP 102. Prerequisite or Co-requisite: MAT 111.

**EDP 111 COBOL Programming II** 2 4 0 4  
 A continuation of the study of COBOL. Includes more complex COBOL instructions and techniques. Laboratory exercises involving developing program logic and writing programs to solve simulated industrial and business problems. Prerequisite: EDP 110.

**EDP 112 COBOL Programming III** 2 4 0 4  
 A continuation of the study of COBOL emphasizing the more complex features of the language, efficient programming techniques, and debugging techniques. Laboratory exercises involving developing program logic, and writing programs to solve simulated business and industrial problems. Prerequisite: EDP 111.

**EDP 201 Computer Systems** 3 2 0 4  
 A study of computer systems involving such topics as job scheduling, file devices, file organization, operating systems, job control language, and multiprogramming. Prerequisite: EDP 105, EDP 110.

**EDP 205 Systems Design and Analysis I** 3 2 0 4  
 The first of two courses designed to give the student training in systems design and analysis. Emphasis in both classroom and laboratory work on problem definition, file organization, effective retrieval and manipulation of information, and systems design techniques. Prerequisite: EDP 111.

**EDP 206 Systems Design and Analysis II** 3 2 0 4  
 A continuation of Systems Design and Analysis I. Emphasizes the application of principles studied to data processing systems in the business enterprise. Prerequisite: EDP 205.

**EDP 210 Language Survey** 2 0 0 2  
 A survey and comparative study of various computer languages in current use. Stresses the evaluation of languages in terms of utilization in various business applications. Prerequisite: EDP 206.

**EDP 220 Research Project** 1 8 0 0  
 Individual assignments of a carefully selected project. Designed to give the student opportunity to initiate and carry out a project. Places the responsibility upon the student to solve a significant problem with a minimum of assistance from the instructor. Prerequisite: EDP 206.

**EDP 230 Introduction to FORTRAN** 3 2 0 0  
 An introduction to FORTRAN, a problem-oriented language. Laboratory exercises devoted to the developing of program logic and writing programs using FORTRAN. Prerequisites: EDP 100, EDP 102, MAT 112.

**EDP 240 PL/1 Programming I** 3 2 0 0  
 An introduction to PL/1 programming. Includes basic PL/1 concepts, components, structure, and instructions. Laboratory assignments devoted to developing program logic and writing programs using PL/1. Prerequisites: EDP 100, EDP 102.

**EDP 250 RPG Programming** 3 2 0 0  
 An introduction to RPG programming. Laboratory exercises devoted to developing program logic and writing programs in RPG to solve simulated business problems. Prerequisites: EDP 100, EDP 102.

**ENG 100 Oral Communication** 3 0 0 0  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 0  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing** 3 0 0 0  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press release, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

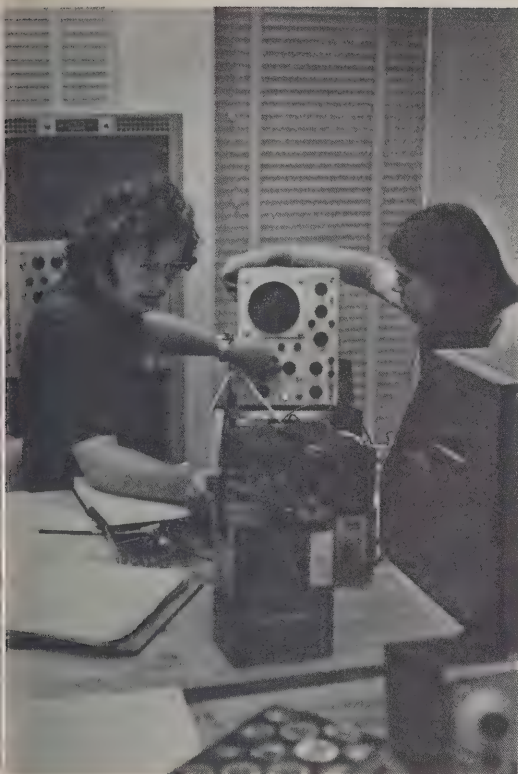
**ENG 206 Business Communications** 3 0 0 0  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, other specific types of business letters. Prerequisite: ENG 102.

**MAT 111 EDP Mathematics I** 5 0 0 0  
 A course of study in basic mathematical concepts which includes numbering systems and basic modern mathematics. All topics stressed within the framework of application to data processing. Prerequisite: None.

**MAT 112 EDP Mathematics II** 5 0 0 0  
 A continuation of EDP Mathematics I. Includes equations, linear and nonlinear functions, simultaneous equations, and matrices. Stresses practical application of data processing problems. Prerequisite: MAT 111.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval. Business electives should be selected from the courses offered within the curriculum of the Business Technologies Department, subject to advisor approval.





## ELECTRONICS ENGINEERING TECHNOLOGY T-045

The past decade has seen an electronics invasion into practically every industrial operation because of the development of the integrated circuit. The ever expanding application of these tiny micro-electronic devices has produced an industrial revolution in the areas of computers, machine controls, communications, entertainment electronics, space technology and medical electronics. As a result, thousands of new job opportunities have emerged for the electronics technician. The individual who expects to enter this fascinating field must acquire the highly specialized skills and knowledge which will enable him to work with engineers and scientists in developing, constructing and testing all kinds of electronic products. This is an ABET accredited curriculum.

Total credit hours: 121

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
AT 101 Technical Mathematics I	5	0	0	5
WG 100 Oral Communication	3	0	0	3
EC 101 Fundamentals of Electricity I	5	2	6	8
	13	2	6	16
<b>SECOND QUARTER</b>				
AT 102 Technical Mathematics II	5	0	0	5
WG 101 Introduction to Written Communication	3	0	0	3
EC 102 Fundamentals of Electricity II	5	2	6	8
	13	2	6	16
<b>THIRD QUARTER</b>				
AT 103 Technical Mathematics III	5	0	0	5
WG 102 Composition	3	0	0	3
PHY 111 Physics: Mechanics	3	2	0	4
EN 105 Control Devices	5	2	6	8
	16	4	6	20
<b>FOURTH QUARTER</b>				
AT 201 Technical Mathematics IV	5	0	0	5
PHY 112 Physics: Materials and Heat	3	2	0	4
EN 205 Semi-Conductor Applications I	5	2	6	8
	13	4	6	17
<b>FIFTH QUARTER</b>				
WG 103 Technical Report Writing	3	0	0	3
EN 210 Semi-Conductor Applications II	5	0	6	7
EN 218 Pulse, Logic and Digital Circuits	5	0	6	7
	13	0	12	17

### Course Title

#### SIXTH QUARTER

DFT 101	Technical Drafting I
PSY 206	Applied Psychology
ELN 235	Industrial Electronics
ELN 219	Digital Fundamentals

#### SEVENTH QUARTER

PHY 114	Physics: Light and Sound
ECO 102	Economics I
ELN 245	Electronic Design Project
ELN 247	Electronic Systems: Computers

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

### Hours Per Week

C	L	P	QH
2	0	6	4
3	0	0	3
3	0	6	5
4	0	6	6
12	0	18	18
3	2	0	4
3	0	0	3
2	0	6	4
4	0	6	6
12	2	12	17

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**DFT 101 Technical Drafting I** 2 0 6 4  
 Introduction of the field of drafting as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Includes use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing (principal views). Prerequisite: None.

**ECO 102 Economics I** 3 0 0 3  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ELC 101 Fundamentals of Electricity I** 5 2 6 8  
 Elementary principles of electricity including basic electric units. Ohm's law, Kirchhoff's law, network, theorems, megnetics, inductance, capacitance, sine wave analysis, and nonresonant resistive, inductive and capacitive networks. Prerequisite: None.

**ELC 102 Fundamentals of Electricity II** 5 2 6 8  
 Series and parallel resonant-circuits analysis, resonant and non-resonant transformer analysis, basic diode power supply analysis, introduction to non-linear resistive control devices, and introduction to electromechanical devices. Prerequisites: ELC 101, MAT 101.

**ELN 105 Control Devices** 5 2 6 8  
 The study of physical and electrical characteristics of a wide variety of semiconductor devices such as diodes, transistors and multilayer PN devices. Applications of a general nature are included. Prerequisites: ELC 102, MAT 102.

**ELN 205 Semiconductor Applications I** 5 2 6 8  
 A study in depth of the analysis and design of transistor circuits pertaining to amplifiers and oscillators. Equivalent circuit parameters are used in the design procedures. Prerequisite: ELN 105, MAT 103.

**ELN 210 Semiconductor Applications II** 5 0 6 7  
 This course is an extensive study of Linear Integrated circuits such as differential and operational amplifiers, regulators, timers and phase lock loops. Emphasis is placed on Op Amp applications. A design project may be included in the course. Prerequisite: ELN 205.

**ELN 218 Pulse, Logic and Digital Circuits** 5 0 6 7  
 The study of waveform analysis, integrators and differentiators, clippers and clampers, multivibrators, numbering systems, Boolean algebra, and logic gates. Prerequisite: MAT 103, and ELN 205.

**ELN 219 Digital Fundamentals** 4 0 6 6  
 The study of flip-flops, counters and registers, coders and decoders, multiplexers and demultiplexers, data displays, memories, arithmetic circuits, and their applications in digital systems. Prerequisite: ELN 218.

**ELN 235 Industrial Electronics** 3 0 6 5  
 Broad introduction to the use of industrial electro-mechanical and electronic circuits and mechanisms. Provides a basic understanding of various electrical transducers related to pressure, temperature, light, sound, and humidity; and how they can be applied to their associated circuitry with emphasis on applications. Prerequisite: ELN 205.

**ELN 245 Electronic Design Project** 2 0 6 4  
 The course is devoted entirely to the development, testing, and evaluation of an electronic design project, using all of the skills and knowledge which the student has acquired thus far. Research and development procedures are emphasized in developing a prototype model. Prerequisite: ELN 210.

**ELN 247 Electronic System Computers** 4 0 6 6  
 This course consists of a functional block diagram analysis of a micro-computer system currently used in industry. Classroom activity includes flow charting and the use of the instruction set in writing programs in machine language. The lab will provide practice in manipulating the hardware and software associated with such computers. Prerequisites: ELN 210, and ELN 219.

**ENG 100 Oral Communication** 3 0 0 3  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a literature research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0  
 The fundamentals of English are utilized as a background for the organization techniques of modern report writing. Exercises in developing typical reports, writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to student's chosen curriculum. Prerequisite: ENG 102.

**MAT 101 Technical Mathematics I** 5 0 0  
 A course in mathematics designed to support all technology courses. Topics covered: fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, quadratic equations, vectors, oblique triangles, and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement test or MAT 004.

**MAT 102 Technical Mathematics II** 5 0 0  
 A course in mathematics designed to support all technology courses. Topics covered: exponents and radicals, the j-operator, logarithms, algebraic and trigonometric equations, inequalities, variations, progressions, advanced topics in trigonometry, and equations of higher degree. Prerequisite: MAT 101.

**MAT 103 Technical Mathematics III** 5 0 0  
 A course in mathematics designed to support all technology courses. Topics covered: the straight line, limits, geometric and algebraic interpretation of the derivative, applications of the derivative, integration, and applications of integration. Prerequisite: 102.

**MAT 201 Technical Mathematics IV** 5 0 0  
 A course in mathematics designed to support the Electronics Technology curriculum. Topics covered are advanced concepts of differential and integral calculus, the MacLaurin series, series expansions, and differential equations and applications. Prerequisite: MAT 103.

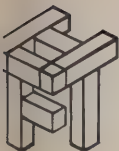
**PHY 111 Physics — Mechanics** 3 2 0  
 A fundamental course which develops the concepts of force motion work, energy power. Also included are the topics of vector analysis, rotational motion and machines. Co-requisite: MAT 102.

**PHY 112 Physics — Materials and Heat** 3 2 0  
 A course which examines the properties of solids, liquids at rest and in motion, the laws and their application, heat and thermodynamics. Emphasis is on practical application through the use of realistic problems and laboratory exercises. Prerequisite: 111.

**PHY 114 Physics — Light and Sound** 3 2 0  
 A study of wave motion and the generation, transmission and detection of sound light. Topics include acoustics, illumination, optical devices and lasers. Practical application is emphasized through exercises an acoustical analysis of buildings and light system design and layout. Prerequisite: PHY 111.

**PSY 206 Applied Psychology** 3 0 0  
 A study of the principles of psychology that will be of assistance in the understanding interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated: employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.





## EXECUTIVE SECRETARIAL SCIENCE T-030

Many individuals are employed in occupations requiring stenographic skills. Practically all secretaries record dictation and transcribe it on the typewriter. Usually they have additional duties related to the nature of the employer's business, and sometimes they have special job titles which reflect skill levels or job specialties. In addition to their stenographic work, secretaries usually relieve employers of routine duties and frequently handle a variety of business details on their own initiative.

The two year program of studies provides instruction in all phases of secretarial work, including the operation of the most up-to-date office machines.

Total credit hours: 110

### Curriculum By Quarters

#### Course Title

#### FIRST QUARTER

ENG 100	Oral Communication	3	0	0	3
MAT 109	Business Mathematics	5	0	0	5
ECON 108	Consumer Economics	3	0	0	3
ENG 102	Typewriting I	2	0	3	3
IS 101	Principles of Business Data Processing	3	2	0	4
		16	2	3	18

#### SECOND QUARTER

ENG 101	Introduction to Written Communication	3	0	0	3
ENG 103	Typewriting II	2	0	3	3
ENG 106	Shorthand I	3	0	3	4
IS 110	Office Machines I	2	0	3	3
		10	0	9	13

#### THIRD QUARTER

ENG 102	Composition	3	0	0	3
ENG 104	Typewriting III	2	0	3	3
ENG 107	Shorthand II	3	0	3	4
IS 115	Business Law I	3	0	0	3
PSY 112	Personality Development	3	0	0	3
		14	0	6	16

#### FOURTH QUARTER

ENG 108	Shorthand III	3	0	3	4
ENG 105	Typewriting IV	2	0	3	3
IS 211	Office Machines II	2	0	3	3
ENG 205	Business Report Writing	3	0	0	3
		10	0	9	13

#### Course Title

#### FIFTH QUARTER

BUS 206	Dictation-Transcription I	3	0	3	4
ENG 206	Business Communications	3	0	0	3
BUS 213	Filing	2	0	0	2
BUS 118	Secretarial Accounting I	4	0	3	5
BUS	Elective	3	0	0	3
		15	0	6	17

#### SIXTH QUARTER

BUS 207	Dictation-Transcription II	3	0	3	4
BUS 214	Secretarial Procedures	5	0	0	5
BUS 113	Vocabulary/Terminology I	3	0	0	3
BUS 119	Secretarial Accounting II	4	0	3	5
		15	0	6	17

#### SEVENTH QUARTER

SOC 103	Sociology	3	0	0	3
BUS 208	Dictation-Transcription III	3	0	3	4
BUS 272	Principles of Supervision	3	0	0	3
BUS 219	Office Application (or BUS Elective)	1	0	20	3
		3	0	0	3
		13	0	23	16

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

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**BUS 102 Typewriting I** 2 0 3 3  
 Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 103 Typewriting II** 2 0 3 3  
 Emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. Includes application of these skills and techniques in tabulation, manuscripts, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent.

**BUS 104 Typewriting III** 2 0 3 3  
 Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 103 or the equivalent.

**BUS 105 Typewriting IV** 2 0 3 3  
 A continuation of BUS 104. Prerequisite: BUS 104 or equivalent.

**BUS 106 Shorthand I** 3 0 3 4  
 A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases. Prerequisite: None.

**BUS 107 Shorthand II** 3 0 3 4  
 Continued study of theory with greater emphasis on dictation and elementary transcription. Prerequisite: BUS 106 or equivalent.

**BUS 108 Shorthand III** 3 0 3 4  
 Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription. Prerequisite: BUS 107.

**BUS 109 Business Mathematics** 5 0 0 5  
 Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I** 2 0 3 3  
 This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

**BUS 113 Vocabulary/Terminology I** 3 0 0 3  
 Develops an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in business, technical, and professional offices.

**BUS 115 Business Law I** 3 0 0 3  
 A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 118 Secretarial Accounting I** 4 0 3 5  
 This course is the first of two courses designed specifically for secretarial majors to study the principles, practices and tools of the accounting process as encountered in the secretarial profession. Prerequisites: None.

**BUS 119 Secretarial Accounting II** 4 0 3 5  
 This course is the second of two courses designed to further develop skills in accounting as needed by secretarial majors. The principles defined in Secretarial Acctg. I are broadened and put to use through workbook problems and a practice set. Prerequisite: BUS 118.

**BUS 206 Dictation and Transcription I** 3 0 3 4  
 Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material. Prerequisite: BUS 108.

**BUS 207 Dictation and Transcription II** 3 0 3 4  
 Emphasizes accuracy, speed, and vocabulary that will enable student to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material. Prerequisite: BUS 206.

**BUS 208 Dictation and Transcription III** 3 0 3 4  
 Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material. Prerequisite: BUS 207.

**BUS 211 Office Machines II** 2 0 3  
 Instructions in the operation of duplicating equipment and dictating and transcription machines. Prerequisite: BUS 103.

**BUS 213 Filing** 2 0 3  
 Fundamentals of indexing and filing, combining theory and practice by use of miniature letters, filing boxes and guides, given through individualized instruction. Course includes alphabetic, numeric, and geographic filing as well as records control. Course offered through the Individualized Learning Center. Prerequisite: None.

**BUS 214 Secretarial Procedures** 5 0 1  
 Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. Includes receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, company organization, and insurance claims. Prerequisite: Open to second year students only.

**BUS 219 Office Application** 1 0 2  
 During the last quarter only, students are assigned to work in a business or professional office for 20 hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned.

**BUS 272 Principles of Supervision** 3 0 1  
 A study of the basic responsibilities of the supervisor and his relationship to supervising subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**ECO 108 Consumer Economics** 3 0 1  
 Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in budgeting, managing his finances, increasing his resources and to understand better the economic system in which he lives. Prerequisite: None.

**EDP 101 Principles of Business Data Processing** 3 2 1  
 An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**ENG 100 Oral Communication** 3 0 1  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 1  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 1  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a final research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing** 3 0 1  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

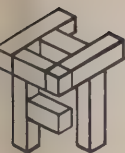
**ENG 206 Business Communications** 3 0 1  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application and other specific types of business letters. Prerequisite: ENG 102.

**PSY 112 Personality Development** 3 0 1  
 Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasizes grooming and method of personality development. Prerequisite: None.

**SOC 103 Sociology** 3 0 1  
 The student will examine the social environment in which personality matures, and an analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisor approval. Business electives should be selected from the courses offered within the curriculum of the Business Technologies Department, subject to advisor approval.





## EXECUTIVE SECRETARIAL SCIENCE — MACHINE TRANSCRIPTION OPTION T-033

This course of study is very similar to the Executive Secretarial Science curriculum with one major difference. There is no shorthand offered in this program. In its place are several courses which will prepare these students for handling machine transcription. In many offices shorthand is not used, and in others machine transcription serves the purposes of the employer. In addition, students in this option get two quarters of accounting, a quarter of economics, and a course in vocabulary/terminology.

Total credit hours: 104

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ENG 100	Oral Communication		3	0	0	3
BUS 109	Business Mathematics		5	0	0	5
ECON 108	Consumer Economics		3	0	0	3
BUS 102	Typewriting I		2	0	3	3
DP 101	Principles of Business Data Processing		3	2	0	4
			16	2	3	18
<b>SECOND QUARTER</b>						
ENG 101	Introduction to Written Communication		3	0	0	3
BUS 103	Typewriting II		2	0	3	3
BUS 110	Office Machines I		2	0	3	3
BUS 113	Vocabulary/Terminology I		3	0	0	3
			10	0	6	12
<b>THIRD QUARTER</b>						
ENG 102	Composition		3	0	0	3
BUS 104	Typewriting III		2	0	3	3
BUS 114	Vocabulary/Terminology II		3	0	0	3
BUS 115	Business Law I		3	0	0	3
PSY 112	Personality Development		3	0	0	3
			14	0	3	15
<b>FOURTH QUARTER</b>						
BUS 105	Typewriting IV		2	0	3	3
ENG 205	Business Report Writing		3	0	0	3
ECON 102	Economics I		3	0	0	3
BUS 232	Sales Development		3	0	0	3
BUS 211	Office Machines II		2	0	3	3
			13	0	6	15

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIFTH QUARTER</b>						
BUS 112	Techniques of Machine Transcription		2	0	3	3
ENG 206	Business Communications		3	0	0	3
BUS 118	Secretarial Accounting I		4	0	3	5
BUS 213	Filing		2	0	0	2
	Elective		3	0	0	3
			14	0	6	16
<b>SIXTH QUARTER</b>						
PSY 206	Applied Psychology		3	0	0	3
BUS 214	Secretarial Procedures		5	0	0	5
BUS 119	Secretarial Accounting II		4	0	3	5
BUS 212	Machine Transcription I		2	0	3	3
			14	0	6	16
<b>SEVENTH QUARTER</b>						
SOC 103	Sociology		3	0	0	3
BUS 215	Machine Transcription II		2	0	3	3
BUS 272	Principles of Supervision		3	0	0	3
BUS 219	Office Application (or BUS Elective)		1	0	20	3
			9	0	23	12

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

# **Forsyth Technical Institute** **2100 Silas Creek Pkwy.** **Winston-Salem, N.C. 27103**

**BUS 102 Typewriting I** 2 0 3 3  
 Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 103 Typewriting II** 2 0 3 3  
 Emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. Includes application of these skills and techniques in tabulation, manuscripts, correspondence, and business forms. Prerequisite: BUS 102 or the equivalent.

**BUS 104 Typewriting III** 2 0 3 3  
 Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms. Prerequisite: BUS 103 or the equivalent.

**BUS 105 Typewriting IV** 2 0 3 3  
 A continuation of BUS 104. Prerequisite: BUS 104 or equivalent.

**BUS 109 Business Mathematics** 5 0 0 5  
 Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I** 2 0 3 3  
 This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

**BUS 112 Techniques of Machine Transcription** 2 0 3 3  
 Emphasis placed on the use of the dictionary and secretarial reference manual in producing mailable transcripts. The following items are included: expression of dates and numerical amounts; letter style, format, and placement; capitalization and punctuation; word spelling and division. Prerequisite: BUS 103.

**BUS 113 Vocabulary/Terminology I** 3 0 0 3  
 Develops an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in business, technical, and professional offices.

**BUS 114 Vocabulary/Terminology II** 3 0 0 3  
 Greater emphasis on the understanding of terminology and vocabulary in the business environment with special emphasis in such areas as the medical and legal professions as well as word processing. Prerequisite: BUS 113.

**BUS 115 Business Law I** 3 0 0 3  
 A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 118 Secretarial Accounting I** 4 0 3 5  
 This course is the first of two courses designed specifically for secretarial majors to study the principles, practices and tools of the accounting process as encountered in the secretarial profession. Prerequisites: None.

**BUS 119 Secretarial Accounting II** 4 0 3 5  
 This course is the second of two courses designed to further develop skills in accounting as needed by secretarial majors. The principles defined in Secretarial Acctg. I are broadened and put to use through workbook problems and a practice set. Prerequisites: BUS 118.

**BUS 211 Office Machines II** 2 0 3 3  
 Instructions in the operation of duplicating equipment and dictating and transcribing machines. Prerequisite: BUS 103.

**BUS 212 Machine Transcription I** 2 0 3 3  
 Develops the skill of direct transcription from oral dictation to mailable typewritten form, which involves correct punctuation, spelling, and typing styles.

**BUS 213 Filing** 2 0 0 2  
 Fundamentals of indexing and filing, combining theory and practice by use of miniature letters, filing boxes and guides, given through individualized instruction. Course includes alphabetic, numeric, and geographic filing as well as records control. Course offered through the Individualized Learning Center. Prerequisite: None.

**BUS 214 Secretarial Procedures** 5 0 0 5  
 Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. Includes receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. Prerequisite: Open to second year students only.

**BUS 215 Machine Transcription II** 2 0 3 3  
 Builds speed in the skill of direct transcription from oral dictation to a mailable typewritten form, which involves correct punctuation, spelling, and typing styles. Prerequisite: BUS 212.

**BUS 219 Office Application** 1 0 2 0  
 During the last quarter only, students are assigned to work in a business or professional office for 20 hours per week. The objective is to provide actual work experience secretarial students and an opportunity for the practical application of the skills knowledge previously learned.

**BUS 232 Sales Development** 3 0 0  
 A study of retail, wholesale and specialty selling. Emphasizes the mastering and application of the fundamentals of selling. Preparation for and execution of sales demonstrations required. Prerequisite: None.

**BUS 272 Principles of Supervision** 3 0 0  
 A study of the basic responsibilities of the supervisor and his relationship to supervise subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**ECO 102 Economics I** 3 0 0  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ECO 108 Consumer Economics** 3 0 0  
 Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in budgeting his finances, increasing his resources and to understand better the economy in which he lives. Prerequisite: None.

**EDP 101 Principles of Business Data Processing** 3 2 0  
 An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**ENG 100 Oral Communication** 3 0 0  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing** 3 0 0  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

**ENG 206 Business Communications** 3 0 0  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

**PSY 112 Personality Development** 3 0 0  
 Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasizes grooming and method of personality development. Prerequisite: None.

**PSY 206 Applied Psychology** 3 0 0  
 A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated include employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**SOC 103 Sociology** 3 0 0  
 The student will examine the social environment in which personality matures, and analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval. Business electives should be selected from the courses offered within the curriculum of the Business Technologies Department, subject to advisor approval.





## INDUSTRIAL MANAGEMENT TECHNOLOGY T-049

Industry's needs in positions of supervision and mid-management have grown complex with the development of new methods of manufacturing and with the changes in the national economy. This need has added emphasis to the necessity for well-trained individuals that can understand new methods and keep abreast of trends in the economy. The supervisor and persons in mid-management must be concerned daily with human behavior and the psychological factors which affect personnel working under their direction. They must also be conscious of the responsibilities of their position toward the total economic well being of the industry.

These requirements have set forth the objectives in developing this program to prepare people for supervisory and mid-management responsibilities in industry.

The program is prepared to develop the individual's abilities in the art of communicating with his fellow worker by providing him with training in business and industrial management, psychology, production methods, and the general and social education that broadens one's perspective. This training should provide one with the opportunity to enter into an industrial occupation and, with experience, assume the responsibilities that go with supervisory and mid-management positions in industry.

Total credit hours: 118

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
ISC 100	Oral Communication	3	0	0	3
ES 120	Accounting I	4	0	3	5
MT 101	Technical Mathematics I	5	0	0	5
ISC 101	Introduction to Business	5	0	0	5
		17	0	3	18
<b>SECOND QUARTER</b>					
ISC 101	Introduction to Written Communication	3	0	0	3
ES 121	Accounting II	4	0	3	5
EC 102	Economics I	3	0	0	3
EC 102	Principles of Sociology	5	0	0	5
		15	0	3	16
<b>THIRD QUARTER</b>					
EG 102	Composition	3	0	0	3
ES 115	Business Law I	3	0	0	3
ES 210	Business Statistics	5	0	0	5
ES 122	Accounting III	4	0	3	5
EC 104	Economics II	3	0	0	3
		18	0	3	19
<b>FOURTH QUARTER</b>					
EP 101	Principles of Business Data Processing	3	2	0	4
EG 205	Business Report Writing	3	0	0	3
PSY 101	Psychology	3	0	0	3
ISC 201	Industrial Organization and Management	3	0	0	3
	Elective*	3	0	0	3
		15	2	0	16

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIFTH QUARTER</b>					
ISC 101	Introduction to Occupational Safety & Health	4	0	0	4
	Elective	3	0	0	3
BUS 235	Business Management	5	0	0	5
ISC 202	Quality Control	3	2	0	4
DFT 113	Blueprint Interpretation	3	0	0	3
		18	2	0	19
<b>SIXTH QUARTER</b>					
BUS 239	Marketing	5	0	0	5
ISC 203	Motion and Time Study	3	2	0	4
MEC 206	Process Analysis and Estimating	3	4	0	5
PSY 206	Applied Psychology	3	0	0	3
		14	6	0	17
<b>SEVENTH QUARTER</b>					
BUS 272	Principles of Supervision	3	0	0	3
BUS 233	Personnel Management	3	0	0	3
MEC 213	Production Planning	4	0	0	4
	Elective*	3	0	0	3
		13	0	0	13

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 101 Introduction to Business** 5 0 0 5  
 A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

**BUS 115 Business Law I** 3 0 0 3  
 A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 120 Accounting I** 4 0 3 5  
 The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite or Co-requisite: BUS 109, MAT 101 or MAT 111.

**BUS 121 Accounting II** 4 0 3 5  
 Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 122 Accounting III** 4 0 3 5  
 Accounting III utilizes and expands the principles and concepts set forth in Accounting I and Accounting II. Attention is given to manufacturing and job order cost systems, budgetary control and standard cost systems. Additional attention is given to the decision making process as determined from cost and revenue relationships, management reports, changes in financial position, consolidated statements, and financial statements. Prerequisite: BUS 121.

**BUS 210 Business Statistics** 5 0 0 5  
 A course for business technology students dealing with statistical concepts encountered in industry. Included: frequency distribution, central tendency, price and quantity indexes, probability, normal and binomial distributions, z-scores, and hypothesis testing. Prerequisite: None.

**BUS 233 Personnel Management** 3 0 0 3  
 Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.

**BUS 235 Business Management** 5 0 0 5  
 An introduction to the concepts of business and other organizational management. Analysis and practice of management procedures. Includes planning and decision-making, organizational structures and behavior, leadership and motivation, and resources control. Prerequisite: None.

**BUS 239 Marketing** 5 0 0 5  
 A study of the principles and problems of marketing goods and services in a free enterprise economy. Emphasizes product selection and development, promotion, channels of distribution and pricing. Prerequisite: None.

**BUS 272 Principles of Supervision** 3 0 0 3  
 A study of the basic responsibilities of the supervisor and his relationship to supervisors, subordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**DFT 113 Blueprint Interpretation-Mechanical** 3 0 0 3  
 A study is made of graphical methods and techniques used in expressing, interpreting, and communicating engineering ideas.

**ECO 102 Economics I** 3 0 0 3  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ECO 104 Economics II** 3 0 0 3  
 A further study into the function of the United States' economy as well as a look into world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payments, economic development, and comparative economic systems. Prerequisite: ECO 102.

**EDP 101 Principles of Business Data Processing** 3 2 0 4  
 An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**ENG 100 Oral Communication** 3 0 0 3  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a research paper. Prerequisite: Eng 101.

**ENG 205 Business Report Writing** 3 0  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press release, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

**ISC 101 Introduction to Occupational Safety and Health** 4 0  
 An introduction to the principles of occupational safety and health and the hazards by persons employed in industrial plants. A survey course covering record-keeping requirements, first aid, and key man development, preparing potential management supervisory personnel for certificates in these areas. Prerequisite: None.

**ISC 201 Industrial Organization and Management** 3 0  
 A survey of the history of modern management and of the various functions which a manager of a modern industrial enterprise must perform. A study of the various departments which assist the manager in carrying out his responsibilities. Prerequisite: None.

**ISC 202 Quality Control** 3 2  
 A study of the principles and techniques of quality control and cost saving; organization and procedure for efficient quality control; functions, responsibilities, structures, reports, records, personnel and vendor-customer relationships in quality control; planning inspections, process control, and tests for significance. Prerequisite: None.

**ISC 203 Motion and Time Study** 3 2  
 Studies include the following: operations analysis, types of process charts, break analysis, micromotion analysis, work measurement techniques, predetermined motion systems (MTM) and development of standard data for incentive systems. Prerequisite: None.

**MAT 101 Technical Mathematics I** 5 0  
 A course in mathematics designed to support all technology courses. Topics cover fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, quadratic equations, vectors, oblique triangles, and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement test or MAT 004.

**MEC 206 Process Analysis and Estimating** 3 4  
 Process planning of operation sequence for efficient production, tool planning, estimating, laboratory operation of machine tools in production projects.

**MEC 213 Production Planning** 4 0  
 Day to day plant direction, forecasting, product planning and control, scheduling, dispatching, routing and inventory control. Case histories are discussed in the room, and courses of corrective action are developed. Prerequisite: ISC 201.

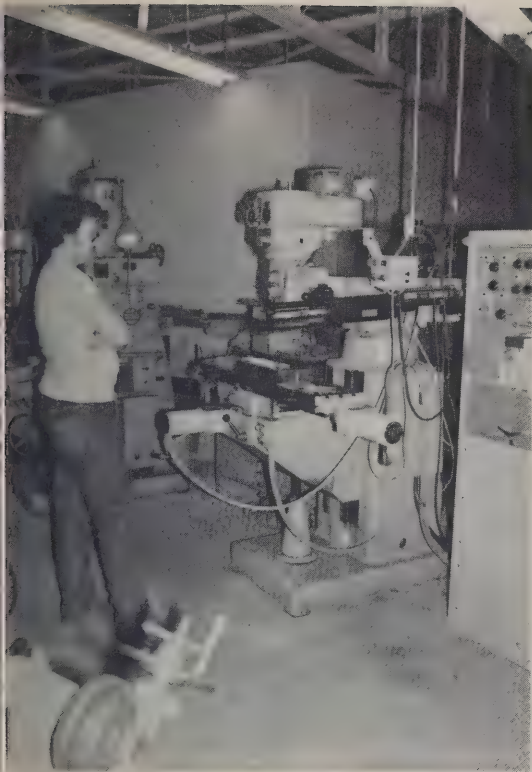
**PSY 101 Psychology** 3 0  
 This course is geared to study the principles of human behavior with reference to thinking, learning, memory, perception, emotional life, individual differences in intelligence, aptitude, and personality, the scientific nature of psychological investigation and research findings related to daily life. Prerequisite: None.

**PSY 206 Applied Psychology** 3 0  
 A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**SOC 102 Principles of Sociology** 5 0  
 An introductory course in the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions, and change. Presents the scientific study of man's behavior in relation to other men and general laws affecting the organization of such relationships and the effects of social environment on human personality and behavior. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses must be consistent with the student's educational needs, interests, and goals. Electives may be chosen from any technical curriculum with appropriate advisory approval.





## MANUFACTURING ENGINEERING TECHNOLOGY T-050

This field is perhaps one of the most promising ones that a student with an interest in science and mechanics may enter in our modern technical world. The demand for trained technicians has exceeded the supply for many years, and every indication is that this situation will continue. This two year program prepares the student for employment as an engineering assistant in such fields as quality control, plant layout, methods and time study, metallurgy, technical sales, and management. Job opportunities exist in industry, civil service, military service, insurance, and the consulting fields.

The Manufacturing Engineering Technology program combines academic courses with laboratory and shop practice. An extensive machine shop, a well equipped material testing laboratory, as well as chemistry and physics laboratories, insure that actual job techniques will be practiced. This is an ABET accredited curriculum.

Total credit hours: 120

### Curriculum By Quarters

Course Title			Hours Per Week				Course Title			Hours Per Week			
			C	L	P	QH				C	L	P	QH
FIRST QUARTER													
MAT	101	Technical Mathematics I	5	0	0	5	ELC	205	Applied Electricity	3	2	0	4
ENG	100	Oral Communication	3	0	0	3	MEC	205	Strength of Materials	3	2	0	4
FT	101	Technical Drafting I	2	0	6	4	MEC	202	Manufacturing Processes II	2	0	6	4
MEC	101	Machine Processes I	1	0	6	3	ECO	102	Economics I	3	0	0	3
MEC	192	Orientation to Manufacturing Engineering Technology	1	0	0	1	MEC	210	Ferrous Metallurgy	3	0	3	4
			12	0	12	16				14	4	9	19
SECOND QUARTER													
MAT	102	Technical Mathematics II	5	0	0	5	PSY	206	Applied Psychology	3	0	0	3
ENG	101	Introduction to Written Communication	3	0	0	3	ISC	202	Quality Control	3	2	0	4
PHY	111	Physics: Mechanics	3	2	0	4	MEC	237	Control Systems	3	2	0	4
FT	102	Technical Drafting II	2	0	6	4	ISC	201	Industrial Organization and Management	3	0	0	3
MEC	102	Machine Processes II	1	0	6	3	ISC	203	Motion and Time Study	3	2	0	4
			14	2	12	19				15	6	0	18
THIRD QUARTER													
MAT	103	Technical Mathematics III	5	0	0	5	ISC	209	Plant Layout	3	2	0	4
ENG	102	Composition	3	0	0	3	ENG	103	Technical Report Writing	3	0	0	3
MEC	201	Manufacturing Processes I	1	0	6	3	MEC	230	Plant Services	3	2	0	4
PHY	112	Physics: Materials and Heat	3	2	0	4	PLA	101	Introduction to Plastics	2	0	3	3
			12	2	6	15	MEC	203	Welding Processes	2	0	3	3
			13	4	6	17				13	4	6	17
FOURTH QUARTER													
MEC	104	Applied Mechanics	5	0	0	5							
MEC	235	Fluid Power	3	0	3	4							
MAT	160	Engineering Computations	1	0	3	2							
CHM	101	Chemistry	4	2	0	5							
			13	2	6	16							
FIFTH QUARTER													
ELC	205	Applied Electricity	3	2	0	4							
MEC	205	Strength of Materials	3	2	0	4							
MEC	202	Manufacturing Processes II	2	0	6	4							
ECO	102	Economics I	3	0	0	3							
MEC	210	Ferrous Metallurgy	3	0	3	4							
			14	4	9	19							
SIXTH QUARTER													
PSY	206	Applied Psychology	3	0	0	3							
ISC	202	Quality Control	3	2	0	4							
MEC	237	Control Systems	3	2	0	4							
ISC	201	Industrial Organization and Management	3	0	0	3							
ISC	203	Motion and Time Study	3	2	0	4							
			15	6	0	18							
SEVENTH QUARTER													
ISC	209	Plant Layout	3	2	0	4							
ENG	103	Technical Report Writing	3	0	0	3							
MEC	230	Plant Services	3	2	0	4							
PLA	101	Introduction to Plastics	2	0	3	3							
MEC	203	Welding Processes	2	0	3	3							
			13	4	6	17							
C - Class L - Lab P - Practicum QH - Quarter Hours Credit													

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

# Forsyth Technical Institute

## 2100 Silas Creek Pkwy.

### Winston-Salem, N.C. 27103

**CHM 101 Chemistry** 4 2 0 5  
Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements, theory of metals, acids, bases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates, electrochemistry, electrolytes, and electrolysis. Industrial and agricultural applications are emphasized.

**DFT 101 Technical Drafting I** 2 0 6 4  
Introduction of the field of drafting as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Includes use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing (principal views). Prerequisite: None.

**DFT 102 Technical Drafting II** 2 0 6 4  
Includes the application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, introduction to sections and conventions. Dimensioning practices for details and working drawings as approved by the American Standards Association. Prerequisite: DFT 101.

**ECO 102 Economics I** 3 0 0 3  
A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ELC 205 Applied Electricity** 3 2 0 4  
Basic theories of electricity, types of electricity, methods of production and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage and transformers are major parts of the course. Prerequisite: PHY 112.

**ENG 100 Oral Communication** 3 0 0 3  
The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**ISC 201 Industrial Organization and Management** 3 0 0 3  
A survey of the history of modern management and of the various functions which the manager of a modern industrial enterprise must perform. A study of the various departments which assist the manager in carrying out his responsibilities. Prerequisite: None.

**ISC 202 Quality Control** 3 2 0 4  
A study of the principles and techniques of quality control and cost saving; organization and procedure for efficient quality control; functions, responsibilities, structures, costs, reports, records, personnel and vendor-customer relationships in quality control; sampling inspections, process control, and tests for significance. Prerequisite: None.

**ISC 203 Motion and Time Study** 3 2 0 4  
Studies include the following: operations analysis, types of process charts, break-even analysis, micromotion analysis, work measurement techniques, predetermined time systems (MTM) and development of standard data for incentive systems. Prerequisite: None.

**ISC 209 Plant Layout** 3 2 0 4  
A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Layouts for small and medium-sized plants; layout fundamentals; selection of production equipment and materials handling equipment; and the effective management of men, money, and materials in a manufacturing operation are also studied. Prerequisite: None.

**MAT 101 Technical Mathematics I** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations and determinants, factoring and fractions, quadratic equations, vectors, oblique triangles, and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement test or MAT 004.

**MAT 102 Technical Mathematics II** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are exponents and radicals, the  $j$ -operator, logarithms, algebraic and trigonometric equations, inequalities, variations, progressions, advanced topics in trigonometry, and equations of higher degree. Prerequisite: MAT 101.

**MAT 103 Technical Mathematics III** 5 0 0 5  
A course in mathematics designed to support all technology courses. Topics covered are the straight line, limits, geometric and algebraic interpretation of the derivative, applications of the derivative, integration, and applications of integration. Prerequisite: MAT 102.

**MAT 160 Engineering Computations** 1 0  
A practical course in using calculation devices. Included: slide rule review, and programmable electronic calculator, and an introduction to computers. Emphasis programming as a mathematical tool. Prerequisite: MAT 102.

**MEC 101 Machine Process I** 1 0  
An introductory course designed to acquaint the student with basic hand tools, procedures and machine processes in our modern industry. Will include a study of measuring instruments, characteristics of metals and cutting tools. Will familiarize the student with the lathe family of the machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

**MEC 102 Machine Processes II** 1 0  
Advanced operations on lathe, drilling, boring, and reaming machines. Milling machine theory and practice. Study of the types of milling machines, cutter, jig and fixtures and the accessories used in a modern industrial plant. Safety in the shop is stressed. Prerequisite: MEC 101.

**MEC 104 Applied Mechanics** 5 0  
Concepts and principles of statics. Parallel, concurrent and non-current forces systems. Coplanar and noncoplanar situations. Concepts of centroids and center of gravity and moments of inertia. Prerequisites: MAT 103, PHY 111.

**MEC 192 Orientation to Manufacturing Engineering Technology** 1 0  
This course is for the purpose of introducing the beginning student in Manufacturing Engineering Technology to the type of work that he may be doing upon graduation. It is a general nature of the courses that he will be taking, as well as allowing him to communicate his feelings and ideas about his studies and/or other problems that he may have. The general conduct of the class should be flexible to encourage the student to bring forth their own ideas and views, rather than just to relate facts and perhaps statistics. Prerequisite: None.

**MEC 201 Manufacturing Processes I** 1 0  
Newer concepts of work handling and automatic machining processes. Chipless production and new techniques in metal forming. Analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling; numerical control system production methods in manufacturing. Prerequisite: MEC 102.

**MEC 202 Manufacturing Processes II** 2 0  
Emphasizes newer concepts of work handling and automatic machining processes. Concentrated study of production methods in manufacturing. Prerequisite: MEC 201.

**MEC 203 Welding Processes** 2 0  
A basic study of all popular welding processes. Includes basic gas welding, basic M.I.G., T.I.G., automatic flame cutting and process application. Operation of each process to a limited extent required. Prerequisite: None.

**MEC 205 Strength of Materials** 3 2  
Study of principles and analysis of stresses which occur within machine and structural elements subjected to various types of loads such as static, impact, varying and dynamic. Analysis of these stresses made as applied to riveted and welded joints, beams, columns and other components. Prerequisite: MEC 104.

**MEC 210 Ferrous Metallurgy** 3 0  
This course is a beginning course in the field of Metallurgy. The first quarter is concerned with the extraction, characteristics, and uses of ferrous metals. An opportunity for the student to use basic metallurgical equipment is presented during the laboratory work. Prerequisite: PHY 112.

**MEC 230 Plant Services** 3 2  
The major areas covered include air conditioning theory and design, air compressors, boilers, and steam piping systems, water treatment, waste treatment and pollution control, and analysis of fuel systems. Prerequisite: None.

**MEC 235 Fluid Power** 3 0  
The basic theories of hydraulic and pneumatic systems. Combinations of systems and various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs. Prerequisites: PHY 111, MAT 103.

**MEC 237 Control Systems** 3 2  
Basic principles of electrical, electronic and pneumatic control systems as related to industrial application. Basic design and functions of circuits, motors, transducers and servomechanisms. Review of the National Electrical Code. Prerequisite: ELC 205.

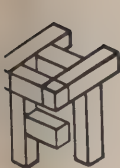
**PHY 111 Physics — Mechanics** 3 2  
A fundamental course which develops the concepts of force motion work, energy and power. Also included are the topics of vector analysis, rotational motion and machines. Co-requisite: MAT 102.

**PHY 112 Physics — Materials and Heat** 3 2  
A course which examines the properties of solids, liquids at rest and in motion, the laws and their application, heat and thermodynamics. Emphasis is on practical application through the use of realistic problems and laboratory exercises. Prerequisite: PHY 111.

**PLA 101 Introduction to Plastics** 2 0  
This course provides the student with an overview of the plastics industry. It includes opportunities to learn the properties of plastics, the range of the user applications jobs done by people in the fabrication of plastics, and the commercial production processes. Some laboratory experience is provided to give a basic understanding of plastics as fabricated. Prerequisite: None.

**PSY 206 Applied Psychology** 3 0  
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.





## MARKETING AND RETAILING T-020



Marketing and Retailing is a program which teaches students the techniques of marketing, management, and distribution which are used in many businesses. The program is designed to give the student a chance to learn the theoretical, as well as practical aspects of occupations at the mid-management level. Retailing occupations are those followed by workers engaged in marketing or merchandising activities or in contact with buyers and sellers when (1) distributing to consumers, retailers, jobbers, wholesalers, and others the products of farm and industry or selling devices, or (2) managing, operating, or conducting retail, wholesale, or service businesses. Distribution pertains to business and consumer services. Occupations are many and diverse, ranging from stock clerk to the head of a giant distribution-oriented corporation. Thus there are hundreds of entry occupations in this field.

Total credit hours: 112

### Curriculum By Quarters

Course Title		Hours Per Week				Course Title		Hours Per Week					
		C	L	P	QH			C	L	P	QH		
FIRST QUARTER													
NG	100	Oral Communication	3	0	0	3	BUS	272	Principles of Supervision	3	0	0	3
US	100	Rapid Calculations	3	0	0	3	ENG	205	Business Report Writing	3	0	0	3
US	245	Retailing	5	0	0	5	EDP	101	Principles of Business Data Processing	3	2	0	4
US	239	Marketing	5	0	0	5	BUS	243	Advertising	4	0	0	4
US	102	Typewriting I	2	0	3	3			13	2	0	14	
		18	0	3	19								
SECOND QUARTER													
NG	101	Introduction to Written Communication	3	0	0	3	BUS	246	Public Relations	3	0	0	3
US	120	Accounting I	4	0	3	5	BUS	242	Display and Design	3	2	0	4
CO	102	Economics I	3	0	0	3	BUS	262	Fashion Merchandising	3	2	0	4
US	232	Sales Development	3	0	0	3	BUS	237	Wholesaling	3	0	0	3
US	109	Business Mathematics	5	0	0	5	PSY	206	Applied Psychology	3	0	0	3
		18	0	3	19			15	4	0	17		
THIRD QUARTER													
NG	102	Composition	3	0	0	3	BUS	234	Advanced Sales	3	0	0	3
US	110	Office Machines I	2	0	3	3	BUS	241	Social Stratification	3	0	0	3
US	115	Business Law I	3	0	0	3	BUS	244	Marketing Research	4	2	0	5
CO	108	Consumer Economics	3	0	0	3			3	0	0	3	
CO	104	Economics II	3	0	0	3			13	2	0	14	
		14	0	3	15								
FOURTH QUARTER													
US	249	Marketing/Retailing Seminar	3	0	20	5	*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.						
SY	112	Personality Development	3	0	0	3							
US	116	Business Law II	3	0	0	3							
NG	206	Business Communications	3	0	0	3							
		12	0	20	14	C - Class L - Lab P - Practicum QH - Quarter Hours Credit							

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 100 Rapid Calculations** 3 0 0 3  
 A course designed to prepare the student to compute problems in arithmetic with a minimum of effort and time. Students will need to know the multiplication tables through twelve, memorize the squares of numbers through twenty-five. A knowledge of first year algebra will be helpful but not prerequisite. After each method is learned, drill will be required for the purpose of reinforcing memory and developing speed. Prerequisite: None.

**BUS 102 Typewriting I** 2 0 3 3  
 Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**BUS 109 Business Mathematics** 5 0 0 5  
 Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 110 Office Machines I** 2 0 3 3  
 This course is designed to introduce students to various types of electronic calculators and their use in basic business mathematical computations. The fundamental principles of using the 10-key touch in addition, subtraction, multiplication and division are covered, as well as such specifics as percents, discounts, commissions, chain discounts, interest, markup, markdown, and payroll. Prerequisite: None.

**BUS 115 Business Law I** 3 0 0 3  
 A general course designed to acquaint the student with certain fundamentals and principles of business law. Includes contracts, negotiable instruments, and agencies. Prerequisite: None.

**BUS 116 Business Law II** 3 0 0 3  
 Includes the study of laws pertaining to bailment, sales, risk-bearing, partnership, corporation, mortgages, and property rights. Prerequisite: BUS 115.

**BUS 120 Accounting I** 4 0 3 5  
 The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite or Co-requisite: BUS 109, MAT 101 or MAT 111.

**BUS 232 Sales Development** 3 0 0 3  
 A study of retail, wholesale and specialty selling. Emphasizes the mastering and the application of the fundamentals of selling. Preparation for and execution of sales demonstrations required. Prerequisite: None.

**BUS 234 Advanced Sales** 3 0 0 3  
 A continuation of Sales Development, BUS 232.

**BUS 237 Wholesaling** 3 0 0 3  
 A comprehensive analysis of the wholesaling function emphasizing the principles and techniques employed by today's wholesale managers. The role of wholesaling in our distribution system and its relation to production and retailing are thoroughly analyzed. Prerequisite: None.

**BUS 239 Marketing** 5 0 0 5  
 A study of the principles and problems of marketing goods and services in a free enterprise economy. Emphasizes product selection and development, promotion, channels of distribution and pricing. Prerequisite: None.

**BUS 241 Social Stratification** 3 0 0 3  
 An analytic approach to the existence of social classes in nearly all societies while offering specific concepts and research on buying living, and social stratification in the United States. Prerequisite: None.

**BUS 242 Display and Design** 3 2 0 4  
 Internal—An introduction to basic layout and design of commercial displays, retail store, and service institutions. Prerequisite: None.

**BUS 243 Advertising** 4 0 0 4  
 The study of the methods and techniques used by ad men and agencies to persuade the public to buy. Topics covered are market research, selection of media, and evaluation and testing of ad effectiveness. Theory and practice in writing and designing ad copy included in class activity. Prerequisite: None.

**BUS 244 Marketing Research** 4 2 0 5  
 Research methods, procedure, techniques. Included will be finance, statistics, sampling, collection of data. A practical field problem will be integrated. Prerequisite: None.

**BUS 245 Retailing** 5 0 0 5  
 A study of the role of retailing in our distribution system. Topics include the development of present retail practice, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. Prerequisite: None.

**BUS 246 Public Relations** 3 0 0 3  
 Public Relations focuses on the planned effort necessary to influence public opinion through good character and responsible performance. Emphasis is placed on the necessity of mutually satisfactory two-way communications. Public relations for businesses is given special attention. Prerequisite: None.

**BUS 249 Marketing-Retailing Seminar** 3 0 20 5  
 Provides a student with an opportunity to pursue, under supervision, work experience in the field of marketing, thus giving realism and motivation to his field of study. Prerequisite: None.

**BUS 262 Fashion Merchandising** 3 2  
 Designed to acquaint the student with fashion and style, characteristics of style, the coordination of color and design analysis. Prerequisite: None.

**BUS 272 Principles of Supervision** 3 0  
 A study of the basic responsibilities of the supervisor and his relationship to superordinates and associates. Emphasizes methods of supervision and problem solving through case studies.

**ECO 102 Economics I** 3 0  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National Product, full employment, business fluctuations, economic growth and the expansion of bank credit. Prerequisite: None.

**ECO 104 Economics II** 3 0  
 A further study into the function of the United States' economy as well as a look at world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and payment, economic development, and comparative economic systems. Prerequisite: ECO 102.

**ECO 108 Consumer Economics** 3 0  
 Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in managing his finances, increasing his resources and to understand better the economy in which he lives. Prerequisite: None.

**EDP 101 Principles of Business Data Processing** 3 2  
 An introductory course designed to acquaint the student with the field of data processing. Includes a historical review of data processing, basic terminology, and fundamental concepts of data processing and programming. Laboratory exercises devoted to familiarizing the student with basic data processing equipment. Prerequisite: None.

**ENG 100 Oral Communication** 3 0  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a research paper. Prerequisite: ENG 101.

**ENG 205 Business Report Writing** 3 0  
 The business report is an influential factor in the managerial decision-making process and the writing phases involved in planning, organizing and preparing this report are major contents of the course. Memoranda, press releases, business articles, minutes, resolutions, agendas, and citations are studied. Prerequisite: ENG 102.

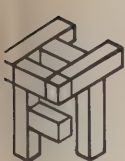
**ENG 206 Business Communications** 3 0  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application and other specific types of business letters. Prerequisite: ENG 102.

**PSY 112 Personality Development** 3 0  
 Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasizes grooming and method of personality development. Prerequisite: None.

**PSY 206 Applied Psychology** 3 0  
 A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated include employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval.





## MECHANICAL DRAFTING AND DESIGN ENGINEERING TECHNOLOGY T-043

Drafting is the language of industrial production, and draftsmen and designers are the language experts in this field. The technical draftsman is responsible for the design and graphical representation of the processes and materials of production. Individuals employed in this field are expected to use creative imagination in the design of tools, machines and machine parts which will facilitate production of goods. This rapidly expanding field offers opportunities which compare favorably with those in any other technical area.

The Drafting and Design program provides the students with an extensive background in the fundamentals of drafting and an understanding of the application of these principles to the design of machines, tools, dies, fixtures, cams, and gears. The course also provides a knowledge of manufactured products, and valuable information for those interested in selling metal products. Emphasis is placed upon the ability to think and plan, and not merely upon drafting techniques.

Total credit hours: 120

### Curriculum By Quarters

#### Course Title

#### FIRST QUARTER

DFT	101	Technical Drafting I
MAT	101	Technical Mathematics I
MEC	101	Machine Processes I
ENG	100	Oral Communication
DFT	192	Orientation to Design Drafting

Hours Per Week			
C	L	P	QH
2	0	6	4
5	0	0	5
1	0	6	3
3	0	0	3
1	0	0	1
12	0	12	16

#### SECOND QUARTER

DFT	102	Technical Drafting II
MAT	102	Technical Mathematics II
MEC	102	Machine Processes II
PHY	111	Physics: Mechanics
ENG	101	Introduction to Written Communication

2	0	6	4
5	0	0	5
1	0	6	3
3	2	0	4
3	0	0	3
14	2	12	19

#### THIRD QUARTER

DFT	103	Technical Drafting III
MAT	103	Technical Mathematics III
PHY	112	Physics: Materials and Heat
ENG	102	Composition
MEC	201	Manufacturing Processes I

2	0	6	4
5	0	0	5
3	2	0	4
3	0	0	3
1	0	6	3
14	2	12	19

#### FOURTH QUARTER

DFT	205	Design Drafting I
DFT	260	Dimensioning & Tolerancing
MEC	104	Applied Mechanics
MEC	210	Ferrous Metallurgy
MEC	235	Fluid Power

2	0	6	4
1	0	3	2
5	0	0	5
3	0	3	4
3	0	3	4
14	0	15	19

#### Course Title

#### FIFTH QUARTER

DFT	204	Descriptive Geometry
DFT	206	Design Drafting II
MEC	205	Strength of Materials
ELC	205	Applied Electricity

#### Hours Per Week

C	L	P	QH
3	0	3	4
2	0	6	4
3	2	0	4
3	2	0	4
11	4	9	16

#### SIXTH QUARTER

DFT	223	Design Drafting III
DFT	211	Mechanisms
ENG	103	Technical Report Writing
MEC	237	Control Systems

3	0	6	5
3	0	3	4
3	0	0	3
3	2	0	4
12	2	9	16

#### SEVENTH QUARTER

DFT	212	Jig & Fixture Design
DFT	224	Product Design
PSY	206	Applied Psychology
ISC	201	Industrial Organization & Management

3	0	6	5
2	0	6	4
3	0	0	3
3	0	0	3
11	0	12	15

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

# Forsyth Technical Institute

## 2100 Silas Creek Pkwy.

### Winston-Salem, N.C. 27103

**DFT 101 Technical Drafting I** 2 0 6 4  
Introduction of the field of drafting as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Includes use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing (principal views). Prerequisite: None.

**DFT 102 Technical Drafting II** 2 0 6 4  
Includes the application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, introduction to sections and conventions. Dimensioning practices for details and working drawing as approved by the American Standards Association. Prerequisite: DFT 101.

**DFT 103 Technical Drafting III** 2 0 6 4  
A study of the various techniques employed to produce and render isometric and oblique drawings and isometric, dimetric, and trimetric projections. Introduction to screw threads and various fasteners. Prerequisite: DFT 102.

**DFT 192 Orientation to Design Drafting** 1 0 0 1  
Designed to acquaint the students with the field and with future employment opportunities. Identifies the role of the draftsman. Prerequisite: None.

**DFT 204 Descriptive Geometry** 3 0 3 4  
Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems stressed with analytical verification where applicable. Visualization stressed on every problem. Prerequisite: DFT 101.

**DFT 205 Design Drafting I** 2 0 6 4  
Introduction to inking, welding symbols and methods of representing and specifying them. Introduces basic design in the study of motion, transfer mechanisms as they relate to power trains. Includes principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices. Types and methods of specifying materials and workmanship integral part of the course. Prerequisite: DFT 103.

**DFT 206 Design Drafting II** 2 0 6 4  
Introduction to piping, drawings and research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and subassembly drawings, and specifications required as a part of the program. Prerequisite: DFT 205, DFT 260.

**DFT 211 Mechanisms** 3 0 3 4  
Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulley, gears and gear trains. Prerequisites: DFT 206, MAT 103, MEC 104.

**DFT 212 Jig and Fixture Design** 3 0 6 5  
Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with types of jigs and fixtures and their design. Prerequisites: DFT 211, DFT 223.

**DFT 223 Design Drafting III** 3 0 6 5  
Fundamentals of punch and die design. Commercial standards and principles of blanking, piercing, bending and forming dies; including compound and progressive. Electro-mechanical drawings of printed circuits, wiring diagrams, and schematics. Prerequisite: DFT 206.

**DFT 224 Product Design** 2 0 6 4  
The bringing together of original ideas, scientific theory involved, applicable product history, limiting manufacturing boundaries, aesthetic importance, and marketability considered with study given to relative importance and intended design goal. Prerequisites: DFT 211, DFT 223.

**DFT 260 Dimensioning and Tolerancing** 1 0 3 2  
Standard Drafting Practices per USASIY 14.5. Includes general dimensioning; general applications of tolerances and limits; tolerance of position and form; advantages of true position tolerancing. Prerequisite: DFT 103.

**ELC 205 Applied Electricity** 3 2 0 4  
Basic theories of electricity, types of electricity, methods of production and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage and transformers are major parts of the course. Prerequisite: PHY 112.

**ENG 100 Oral Communication** 3 0 0 3  
The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**ISC 201 Industrial Organization and Management** 3 0 0  
A survey of the history of modern management and of the various functions which a manager of a modern industrial enterprise must perform. A study of the various departments which assist the manager in carrying out his responsibilities. Prerequisite: None.

**MAT 101 Technical Mathematics I** 5 0 0  
A course in mathematics designed to support all technology courses. Topics cover fundamental concepts and operations of algebra, functions and graphs, trigonometric functions, linear equations, and determinants, factoring and factoids, quadratic equations, vectors, oblique triangles, and graphs of trigonometric functions. Prerequisite: Satisfactory score on mathematics placement test or MAT 004.

**MAT 102 Technical Mathematics II** 5 0 0  
A course in mathematics designed to support all technology courses. Topics cover exponents and radicals, the  $j$ -operator, logarithms, algebraic and trigonometric functions, inequalities, variations, progressions, advanced topics in trigonometry, and functions of higher degree. Prerequisite: MAT 101.

**MAT 103 Technical Mathematics III** 5 0 0  
A course in mathematics designed to support all technology courses. Topics cover the straight line, limits, geometric and algebraic interpretation of the derivative, applications of the derivative, integration, and applications of integration. Prerequisite: MAT 102.

**MEC 101 Machine Processes I** 1 0 0  
An introductory course designed to acquaint the student with basic hand tools, procedures and machine processes in our modern industry. Will include a study of measuring instruments, characteristics of metals and cutting tools. Will familiarize the student with the lathe family of the machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. Prerequisite: None.

**MEC 102 Machine Processes II** 1 0 0  
Advanced operations on lathe, drilling, boring, and reaming machines. Milling machine theory and practice. Study of the types of milling machines, cutter, jig and fixture devices and the accessories used in a modern industrial plant. Safety in the shop stressed. Prerequisite: MEC 101.

**MEC 104 Applied Mechanics** 5 0 0  
Concepts and principles of statistics. Parallel, concurrent and non-current forces in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia. Prerequisites: MAT 103, PHY 111.

**MEC 201 Manufacturing Processes I** 1 0 0  
Newer concepts of work handling and automatic machining processes. Chipless production and new techniques in metal forming. Analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling; numerical control system production methods in manufacturing. Prerequisite: MEC 102.

**MEC 205 Strength of Materials** 3 2 0  
Study of principles and analysis of stresses which occur within machine and structural elements subjected to various types of loads such as static, impact, varying dynamic. Analyses of these stresses made as applied to riveted and welded joints, beams, columns, and other components. Prerequisite: MEC 104.

**MEC 210 Ferrous Metallurgy** 3 0 0  
This course is a beginning course in the field of Metallurgy. This first quarter concerned with the extraction, characteristics, and uses of ferrous metals. An opportunity for the student to use basic metallurgical equipment is presented during laboratory part of the course. Prerequisite: PHY 112.

**MEC 235 Fluid Power** 3 0 0  
The basic theories of hydraulic and pneumatic systems. Combinations of systems and various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs. Prerequisite: PHY 111, MAT 103.

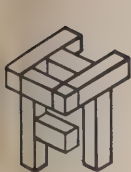
**MEC 237 Control Systems** 3 2 0  
Basic principles of electrical, electronic and pneumatic control systems as related to industrial application. Basic design and functions of circuits, motors, transducers and servomechanisms. Review of the National Electrical Code. Prerequisite: ELC 205.

**PHY 111 Physics — Mechanics** 3 2 0  
A fundamental course which develops the concepts of force motion work, energy and power. Also included are the topics of vector analysis, rotational motion and simple machines. Co-requisite: MAT 102.

**PHY 112 Physics — Materials and Heat** 3 2 0  
A course which examines the properties of solids, liquids at rest and in motion, the laws and their application, heat and thermodynamics. Emphasis is on practical application through the use of realistic problems and laboratory exercises. Prerequisite: PHY 111.

**PSY 206 Applied Psychology** 3 0 0  
A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated: employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.





Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
BIO 107	Anatomy and Physiology I	3	2	0	4
CHM 103	Chemistry—General and Inorganic	3	2	0	4
MAT 113	Allied Health Mathematics I	3	0	0	3
BIO 115	Medical Terminology I	1	0	0	1
NMT 105	Nuclear Medicine Technology I	2	0	0	2
NMT 114	Introduction to Clinical Practice I	0	2	3	2
*NUR 3008	Cardiopulmonary Resuscitation	0	0	0	0
		12	6	3	16
<b>SECOND QUARTER</b>					
BIO 108	Anatomy and Physiology II	3	2	0	4
ENG 100	Oral Communications	3	0	0	3
MAT 114	Allied Health Mathematics II	3	0	0	3
PHY 101	Concepts in Physics	3	0	0	3
BIO 116	Medical Terminology II	1	0	0	1
NMT 106	Nuclear Medicine Technology II	2	0	0	2
NMT 119	Introduction to Clinical Practice II	0	2	6	3
		15	4	6	19
<b>THIRD QUARTER</b>					
PHY 102	Electricity and Electronics	3	0	0	3
ENG 101	Introduction to Written Communications	3	0	0	3
PSY 169	Social Psychology of Health and Illness	3	0	0	3
NMT 107	Nuclear Medicine Technology III	2	2	0	3
NMT 124	Introduction to Clinical Practice III	0	0	12	4
		11	2	12	16
<b>FOURTH QUARTER</b>					
MAT 116	Fundamental Concepts of Statistics	5	0	0	5
SOC 103	Sociology	3	0	0	3
NMT 108	Nuclear Medicine Technology IV	2	2	0	3
NMT 201	(202, 203, or 204) Clinical Practice	0	0	21	7
NMT 268	Open Lab Clinical Practice I	0	0	6	2
		10	2	27	20

## NUCLEAR MEDICINE TECHNOLOGY T-014

Nuclear Medicine is the discipline concerned with the diagnosis, treatment, and clinical investigation of disease, utilizing internally administered radionuclides and sophisticated electronic detection equipment. It is one of the most useful and rapidly growing branches of modern medicine.

The student learns to perform clinical nuclear medicine procedures and is provided with the background in physics, anatomy, physiology, mathematics, radiobiology, instrumentation, electronics, and radiopharmacy that is essential to the performance of superior quality work.

North Carolina Baptist Hospital and Forsyth Memorial Hospital will provide the clinical experience for degree requirements.

Total credit hours: 142

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIFTH QUARTER</b>					
NMT 111	Principles of Nuclear Medicine I	2	0	0	2
NMT 116	Nuclear Physics	2	0	0	2
NMT 220	Instrumentation I	2	0	0	2
NMT 251	Principles of In Vitro Nuclear Medicine I	2	2	0	3
NMT 273	Open Lab Clinical Practice II	0	0	6	2
NMT 202	(201, 203, or 204) Clinical Practice	0	0	21	7
		8	2	27	18
<b>SIXTH QUARTER</b>					
NMT 117	Health Physics	1	0	0	1
NMT 221	Principles of Nuclear Medicine II	2	0	0	2
NMT 223	Radiopharmaceuticals I	2	0	0	2
NMT 235	Instrumentation II	2	2	0	3
NMT 278	Open Lab Clinical Practice III	0	0	6	2
NMT 203	(201, 202, or 204) Clinical Practice	0	0	21	7
		7	2	27	17
<b>SEVENTH QUARTER</b>					
NMT 231	Principles of Nuclear Medicine III	2	0	0	2
NMT 233	Radiopharmaceuticals II	2	0	0	2
NMT 245	Instrumentation III	2	2	0	3
NMT 289	Radiobiology	2	0	0	2
NMT 283	Open Lab Clinical Practice IV	0	0	6	2
NMT 204	(201, 202, or 203) Clinical Practice	0	0	21	7
		8	2	27	18
<b>EIGHTH QUARTER</b>					
PSY 206	Applied Psychology	3	0	0	3
NMT 258	Principles of In Vitro Nuclear Medicine II	2	2	0	3
NMT 290	Nuclear Medicine Seminar	2	0	0	2
NMT 292	Nuclear Medicine Technology Review	2	0	0	2
NMT 300	Clinical Practice Review	0	0	15	5
ENG 102	Composition	3	0	0	3
		12	2	15	18

\*CPR certification by the American Heart Association is required for graduation. Each student must document valid certification during the first quarter and maintain valid certification throughout the program.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

**BIO 107 Anatomy and Physiology I** 3 2 0 4  
An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II** 3 2 0 4  
A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 115 Medical Terminology I** 1 0 0 1  
The first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology I.

**BIO 116 Medical Terminology II** 1 0 0 1  
The second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology II. Prerequisite: BIO 115.

**CHM 103 Chemistry** 3 2 0 4  
Students will be introduced in lecture to important chemical principles fundamental to the understanding of life processes. This will include a foundation in general and organic chemistry followed by the essential features of organic chemistry which lays the groundwork for the study of the biochemistry of living systems. Students are afforded the opportunity to expand their knowledge through classroom discussions and through laboratory work. The laboratory experiments are designed in some cases to introduce specific principles and in other cases to supplement and reinforce material introduced in lecture.

**ENG 100 Oral Communication** 3 0 0 3  
The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**MAT 113 Allied Health Mathematics I** 3 0 0 3  
The first of a series of two courses designed to develop a high level of proficiency in basic mathematical and algebraic skills for the student in a health center. Topics covered are whole numbers, fractions, decimals, percents, algebraic concepts, linear equations, functions and graphs, and trigonometric functions. Prerequisite: None.

**MAT 114 Allied Health Mathematics II** 3 0 0 3  
A continuation of MAT 113. Topics covered are logarithms, ratio and proportion, metric system, apothecaries' system, mathematics of drugs and solutions, and basic statistics. Prerequisite: MAT 113.

**MAT 116 Fundamental Concepts of Statistics** 5 0 0 5  
A course in statistics designed to support all technology courses. In scope, the course consists of frequency distribution, graphic representation, percentiles, measures of central tendency, variability, the normal distribution curve, sampling error, significance of difference between means, correlation, statistics and the design of experiment, and chi-square.

**NMT 105 Nuclear Medicine Technology I** 2 0 0  
This course will provide the student with an overview of the field of nuclear medicine. The course will examine the types of procedures performed in nuclear medicine, a history of the field, general patient care, and practical radiation safety. Prerequisite: None.

**NMT 106 Nuclear Medicine Technology II** 2 0 0  
This course will introduce the students to their responsibilities as health care person. The emphasis of the course will be various aspects of the student patient relations. The course will also deal with other interpersonal relationships that the student will have as a member of the health care team. Prerequisite: None.

**NMT 107 Nuclear Medicine Technology III** 2 2 0  
This course will introduce the student to the instrumentation of nuclear medicine, the area of the radiopharmacy. The emphasis of the course will be the practical aspects rather than the theoretical aspects. Prerequisite: NMT 105.

**NMT 108 Nuclear Medicine Technology IV** 2 2 0  
This course deals with In Vivo nuclear Medicine procedures. A cookbook type format will be used to present all routine In Vivo procedures. In the lab portion of the course, students will walk through the procedures using other students as simulated patients. Prerequisite: NMT 105.

**NMT 111 Principles of Nuclear Medicine I** 2 0 0  
This course will deal with In Vivo nuclear medicine procedures. During the course students will examine studies pertaining to the central nervous system, pulmonary system, and gastrointestinal tract. Prerequisite: NMT 108.

**NMT 114 Introduction to Clinical Practice I** 0 2 3  
This is one of three courses designed to introduce the student to the clinical practice of nuclear medicine technology. The student will assist the staff technologist in performance of routine duties. During this course, the student will be assigned rotations in the clinical facilities. Prerequisite: None.

**NMT 116 Nuclear Physics** 2 0 0  
Nuclear decay schemes and more complicated concepts of radioactive decay will be discussed. Interactions of radiation with matter and the calculation and measurement of radiation doses are included. Prerequisite: PHY 102.

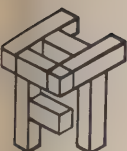
**NMT 117 Health Physics** 1 0 0  
Protective regulations, monitoring methods, and techniques for reducing exposure to patients and technologists, as well as Nuclear Regulatory Commission and N.C. Radiation Protection Programs requirements, will be studied. Prerequisite: None.

**NMT 119 Introduction to Clinical Practice II** 0 2 6  
This is the second of a three part series designed to introduce the student to the clinical practice of nuclear medicine technology. The student will assist the supervising technologist with the routine duties. The student will be assigned four clinical rotations. Prerequisite: NUR 3008.

**NMT 124 Introduction to Clinical Practice III** 0 0 12  
This introduction course is the last of a three part series. The student will be assigned rotations in the clinical facilities and will assist the supervising technologist on a rotation. Upon completion of this course the student will have been exposed to all phases of nuclear medicine. Prerequisite: NUR 3008.

**NMT 201 Clinical Practice** 0 0 21  
This is one of four courses designed to give the student an advanced understanding in clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 119, 124; BIO 108; NUR 3008





#### **NMT 202 Clinical Practice**

0 0 21 7

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 114, 119, 124; BIO 108; NUR 3008.

#### **NMT 203 Clinical Practice**

0 0 21 7

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 114, 119, 124; BIO 108; NUR 3008.

#### **NMT 204 Clinical Practice**

0 0 21 7

This is one of four courses designed to give the student an advanced understanding of clinical practice. The student will have three rotations selected to provide an opportunity to experience various aspects of nuclear medicine technology. Prerequisites: NMT 114, 119, 124; BIO 108; NUR 3008.

#### **NMT 220 Instrumentation I**

2 0 0 2

This course will provide the students with basic information about nuclear medicine instrumentation. The course will focus on the operation of components that are common to the majority of the instruments used in nuclear medicine. In addition to the common components, the course will also examine the operation and utilization of common auxiliary devices. Prerequisites: MAT 116, PHY 102.

#### **NMT 221 Principles of Nuclear Medicine II**

2 0 0 2

This course will deal with In Vivo nuclear medicine procedures. During the course the students will examine studies pertaining to the skeletal system, the cardio-vascular system, and the thyroid gland. Prerequisite: NMT 108.

#### **NMT 223 Radiopharmaceuticals I**

2 0 0 2

Students will receive classroom instruction related to radiopharmacy functions, production of radionuclides and radiopharmacy mathematics. Prerequisite: None.

#### **NMT 231 Principles of Nuclear Medicine III**

2 0 0 2

This course deals with In Vivo nuclear medicine procedures. During the course the students will examine the studies pertaining to the urinary system, In Vivo lab procedures and therapy procedures. Prerequisite: NMT 108.



#### **NMT 235 Instrumentation II**

2 2 0 3

This course will develop the students' understanding of the use of nuclear counting statistics and the operation of nuclear medicine instruments. The primary focus of the course will be the theory of operation of gas detectors and sodium iodide scintillation detectors. In addition, the students will examine the operational characteristics, quality control procedures, and practical utilization of selected instruments. Prerequisite: NMT 220.

#### **NMT 245 Instrumentation III**

2 2 0 3

This is the last of three courses designed to develop the students' understanding of nuclear medicine instruments. The content of the course will include collimators, rectilinear scanners, gamma cameras, and computers. The primary focus of the course will be the theory of operation, operational characteristics, quality control procedures, and the practical utilization of the instruments covered. Prerequisite: NMT 220.

#### **NMT 251 Principles of In Vitro Nuclear Medicine I**

2 2 0 3

This is the first of two courses designed to develop the students' skills and knowledge in the area of In Vitro nuclear medicine. The focus of the course will be laboratory skills, selected aspects of general chemistry, and selected aspects of biochemistry. Prerequisite: CHM 103.

#### **NMT 258 Principles of In Vitro Nuclear Medicine II**

2 2 0 3

This is the second course in a two course series designed to develop the students' skill and knowledge in the area of In Vitro nuclear medicine. The primary focus of the course will be the principles of competitive protein binding assays and the procedure for common assays. Prerequisite: NMT 251.

#### **NMT 268 Open Lab Practicum I**

0 0 6 2

Clinical experience in NMT 201 (202, 203 & 204) as conducted under evening and weekend emergency conditions. Prerequisite: None.

#### **NMT 273 Open Lab Practicum II**

0 0 6 2

Clinical experience in NMT 202 (201, 203 & 204) as conducted under evening and weekend emergency conditions with more emphasis on student participation in the clinical procedures and patient contact. Prerequisite: NMT 268.

#### **NMT 278 Open Lab Practicum III**

0 0 6 2

Clinical experience in NMT 203 (201, 202 & 204) as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 273.

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**NMT 283 Open Lab Practicum IV** 0 0 6 2  
 Clinical experience in NMT 204 (201, 202 & 203) as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278.

**NMT 289 Radiobiology** 2 0 0 2  
 This is a course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects on radiation are stressed. Emphasis is placed on the effects of radiation and the effects of radiation absorption on tissue and tissue recover rate. Prerequisite: NMT 116.

**NMT 290 Nuclear Medicine Technology Seminar** 2 0 0 2  
 This course gives the student an opportunity to review any aspects of nuclear technology in which he has special interest. Guest speakers will be invited to present papers on special topics. Prerequisite: NMT 201, 202, 203, 204.

**NMT 292 Nuclear Medicine Technology Review** 2 0 0 2  
 This course will be a comprehensive review of the nuclear medicine program. The primary focus will be on routine procedures and information that is vital to a nuclear medicine technologist. The culmination of the course will be a comprehensive exam. Prerequisites: NMT 111, 116, 117, 221, 223, 231, 233, 235, 245, 251, 289.

**NMT 300 Clinical Practice Review** 0 0 15 5  
 During this course, the student will be assigned to six clinical rotations. These rotations will be chosen to strengthen demonstrated weaknesses of the student's previous clinical performance. Prerequisites: NMT 201, 202, 203, 204, NUR 3008.

**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0  
 This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardiopulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**PHY 101 Concepts In Physics** 3 0 0 0  
 Nonmathematical introduction to problems and concepts of physics. The major topics covered are mathematics, properties of mathematics, heat, sound, light, electricity, atomic theory. Emphasis will be on the association of physical principles of every phenomenon. Prerequisite: None.

**PHY 102 Electricity and Electronics** 3 0 0 0  
 A study of electricity and electronics including the concepts of electric and magnetic fields, electric potential, electric circuits and solid state devices. Emphasis is on mechanical applications of electricity and electronics. Quantitative problems involve the use of elementary algebra and trigonometry. Prerequisites: MAT 113, PHY 101.

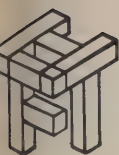
**PSY 169 Social Psychology of Health and Illness** 3 0 0 0  
 On studying how culture defines one's responses to illness, both the psychological and sociological factors which play such an eminent part in one's development will be investigated. The cultural principles attributed to illness, symbols of illness, and situations associated with illness not only illustrate how illness affects family patterns of development, but also how such psychological and sociological principles affect patient, professional, family-patient, and family-professional relationships.

**PSY 206 Applied Psychology** 3 0 0 0  
 A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated include employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**SOC 103 Sociology** 3 0 0 0  
 The student will examine the social environment in which personality matures, and the analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.







## ORNAMENTAL HORTICULTURE T-009

The modern emphasis on outdoor living has created a greater interest in the use of ornamental plants in today's beauty-conscious society. The increased awareness of the value of ornamental plants in landscaping by government, industry, and home-owners has produced a greater demand for trained horticulture technicians.

The Ornamental Horticulture program is designed to give students a good understanding of principles, techniques, and skills which are a necessary foundation for the independent, creative thinking essential to success in this field. Successful completion of this program should qualify individuals for employment in supervision of nurseries and plantings, greenhouse operation, work related to processing and distribution, management of garden shops, supervision or maintenance of golf courses and sale of horticulture products.

Total credit hours: 116

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
AGR 100	Oral Communication	3	0	0	3
AGR 185	Soil Science and Fertilizer	5	2	0	6
CHM 101	Chemistry	4	2	0	5
AGR 254	Plant Propagation	3	2	0	4
		15	6	0	18
<b>SECOND QUARTER</b>					
AGR 101	Introduction to Written Communication	3	0	0	3
AGR 170	Plant Science	4	2	0	5
AGR 151	Plant Materials I	3	4	0	5
AGR 102	Typewriting I	2	0	3	3
		12	6	3	16
<b>THIRD QUARTER</b>					
AGR 102	Composition	3	0	0	3
AGR 140	Home Maintenance	2	4	0	4
AGR 152	Plant Materials II	3	4	0	5
AGR 201	Agricultural Chemicals	3	0	0	3
AGR 150	House Plants	3	0	0	3
		14	8	0	18
<b>FOURTH QUARTER</b>					
AGR 258	Turf Practices	3	4	0	5
AGR 256	Nursery Management I	2	4	0	4
AGR 251	Landscape Gardening I	3	4	0	5
AGR 103	Technical Report Writing	3	0	0	3
		11	12	0	17

### Course Title

#### FIFTH QUARTER

AGR 257	Nursery Management II	2	4	0	4
AGR 252	Landscape Gardening II	3	4	0	5
BUS 109	Business Mathematics	5	0	0	5
AGR 259	Garden Center Management	1	2	0	2
		11	10	0	16

#### SIXTH QUARTER

AGR 200	Practicum	0	0	30	3
AGR 210	Field Analysis	5	0	0	5
AGR 220	Vegetable and Flower Garden	4	0	0	4
		9	0	30	12

#### SEVENTH QUARTER

AGR 153	Greenhouse Management	3	2	0	4
AGR 145	Entomology and Pathology	3	4	0	5
AGR 240	Landscape Construction	4	2	0	5
BUS 235	Business Management	5	0	0	5
		15	8	0	19

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

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**AGR 140 Home Maintenance 2 4 0 4**

A course dealing with the various jobs associated with maintaining a lawn and home surroundings throughout the year. Included would be shrub fertilization, tree fertilization, disease control of lawns and shrubs, pruning, proper irrigation of shrubs and lawns and proper use of various herbicides and pesticides. It will be aimed at the person interested in making maintenance their choice of career work. Prerequisite: None.

**AGR 145 Entomology and Pathology 3 4 0 5**

A study of insects that attack ornamental plant materials. The nature, structure and importance of each insect is studied in detail. Additional emphasis is placed upon detection, identification and control of the insects studied. A study of the control of disease of ornamental crops through the study of structure, life history and identification of the various parasitic disorders which plague ornamental trees, shrubs, flowers, and turf.

**AGR 150 House Plants 3 0 0 3**

A course dealing with simple Botany, Taxonomy, Physiology, identification, culture and care of house plants. One hundred of the more common indoor plants will be studied and identified. Prerequisite: None.

**AGR 151 Plant Materials I 3 4 0 5**

Introduction to the study of woody plant materials which gives an overview of the woody plants grown in nurseries for landscape purposes and those found in woodlands and fields of North Carolina. Emphasizes deciduous shrubs and small trees. Prerequisite: None.

**AGR 152 Plant Materials II 3 4 0 5**

A continuation of AGR 151 in which additional trees and shrubs are studied. Major emphasis placed upon the detailed study of broad leaved and narrow leaved evergreens. Prerequisite: AGR 151.

**AGR 153 Greenhouse Management 3 2 0 4**

Fundamentals and practices in greenhouse plant production. Construction and management of plastic and glass greenhouses, including the control of heat, light, ventilation, and humidity. Crop studies include both cut flowers and pot plant crops. Prerequisite: None.

**AGR 170 Plant Science 4 2 0 5**

An introductory general botany course covering the fundamental principles of the reproduction, growth, functions and development of seed bearing plants. Prerequisite: None.

**AGR 185 Soil Science and Fertilizer 5 2 0 6**

A course dealing with basic principles of efficient classification, evaluation and management of soils. Care, cultivation, fertilization of the soil, and conservation of soil fertility. Prerequisite: None.

**AGR 200 Practicum 0 0 30 3**

A course to permit students to become oriented to the physical aspects of jobs available in their chosen field and to provide opportunities for the development of personal relationships of the type needed by students in any job. To enable students to acquire the skills and practical knowledge necessary for success in their chosen career fields. Prerequisite: Must be second year Horticulture students pursuing degree.

**AGR 201 Agricultural Chemicals 3 0 0 3**

A study of agricultural chemicals — their importance, ingredients, formulation, and application with emphasis on the effective and safe utilization of chemicals in agricultural pest control. Major emphasis placed upon weed identification and those chemicals utilized for weed control. Part of the course devoted to those chemicals other than herbicides — such as insecticides, fungicides and others. Prerequisite: CHM 101.

**AGR 210 Field Analysis 5 0 0 5**

Students will keep records of the experience received in Practicum AGR 200. They will relate such experience to the following major areas of instruction. Plant materials, Plant Science, Soil Science and Fertilizer, Agricultural Chemicals, Landscape Construction, Landscape Gardening, Plant Propagation, and Nursery Management. Records will be summarized in the form of a weekly report and reviewed by the instructor. These reports will culminate in a final term paper.

**AGR 220 Vegetable and Flower Gardening 4 0 0 4**

For the student to be able to plan effectively a complete vegetable garden that will encompass the entire year. The student will also learn how to properly grow them by use of insecticides, herbicides, and proper fertilization. If possible the students will have a garden to take care of so that they might carry out their classroom work.

**AGR 240 Landscape Construction 4 2 0 5**

A study dealing with the actual construction of brick patios, walks, steps, brick borders, brick walls around trees, lawn furniture, picnic tables, or other wood projects which may be used in a home landscape. It will also cover estimating the job cost of these various projects, including drawing plans to scale. Prerequisite: None.

**AGR 251 Landscape Gardening I 3 4 0 5**

An introduction and study of the basic principles of landscape design. Considerable emphasis placed on the problems associated with residential site development. Includes a section devoted to blueprint reading. Considerable laboratory time devoted to visiting established residential sites. The course is not oriented toward a mastery of creativity and artistry, but toward an understanding of certain principles fundamental to all landscape design endeavors. Prerequisites: AGR 151 & AGR 152.

**AGR 252 Landscape Gardening II 3 4**

Development and maintenance of landscape areas including planting, pruning, fertilization, and pest control. Fundamentals of landscape economics; cost, contracts, caring areas, volumes, and plant quantities for landscape projects. Selection and materials in landscape construction. Prerequisite: AGR 151, AGR 152, AGR 251.

**AGR 254 Plant Propagation 3 2**

A study of basic concepts and principles of sexual and asexual propagation. Techn studied through practical exercises conducted in laboratory sessions. Emphasis on those propagation methods widely utilized in the industry. Prerequisite: None.

**AGR 256 Nursery Management I 2 4**

An introductory study of nursery operations to acquaint the student with the diverse nursery plant production, equipment, and operation detail through the study of areas as pruning, fertilization, plant protection, and others. Additional emphasis on the theory and practices necessary to produce profitable nursery stock. Prerequisite: None.

**AGR 257 Nursery Management II 2 4**

A continuation of AGR 256 with increased emphasis placed upon production selection and quantities of stock to be grown, as well as developing cost finding, establishing and record keeping for economically important nursery crops. Planning nursery layout and facilities. Prerequisite: AGR 256.

**AGR 258 Turf Practices 3 4**

A study of special-purpose turf grasses including identification, use, establishment and maintenance of the specific grasses. Laboratory time used for field trips to golf courses where each student observes and participates in those operations required to maintain healthy, vigorous playing surface. Prerequisite: AGR 185.

**AGR 259 Garden Center Management 1 2**

A course covering all phases of garden center operations including some of the problems. Areas of study include such factors as: layout, stocking, product knowledge, traffic flow, seasonal fluctuation, risks, diversification, and merchandising. Ample devoted to visiting established garden center operations. Prerequisite: None.

**BUS 102 Typewriting I 2 0**

Introduction to the touch typewriting system with emphasis on correct technique, mastery of the keyboard, simple business correspondence, tabulation, and manuscript preparation. Prerequisite: None.

**BUS 109 Business Mathematics 5 0**

Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 235 Business Management 5 0**

An introduction to the concepts of business and other organizational management. Analysis and practice of management procedures. Includes planning and decision making, organizational structures and behavior, leadership and motivation, and resources control. Prerequisite: None.

**CHM 101 Chemistry 4 2**

Study of the physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements, titration of metals, acids, bases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates, electrochemistry, electrolytes, and electrolysis. Industrial and agricultural application are emphasized.

**ENG 100 Oral Communication 3 0**

The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included for formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication 3 0**

The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

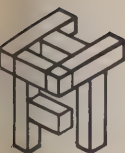
**ENG 102 Composition 3 0**

This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will apply the techniques in full-length compositions. The student will also prepare a final research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing 3 0**

The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.





## POLICE SCIENCE TECHNOLOGY T-064

Police agencies today are moving toward a professional status and law enforcement techniques have evolved from simple jobs requiring minimal qualifications to highly complex activities requiring a great capacity for highly specialized knowledge.

Police officers, both men and women, are charged with the responsibility of protecting life and property. Their responsibilities include preserving the peace, preventing criminal acts, enforcing the law, and apprehending the offenders.

Many opportunities are available for qualified individuals to enter police work. However, future opportunities may be determined to a greater degree by technological and scientific changes in the ever widening scope of law enforcement services.

The Police Science Technology program is designed to instruct the student in current law enforcement methods and in the behavioral sciences. It also provides a firm base of general education, including biology, mathematics, and language skills in developing proficiency in leadership necessary for employment at the operational or management level.

Total credit hours: 111

### Curriculum By Quarters

Course Title			Hours Per Week				Course Title			Hours Per Week			
			C	L	P	QH				C	L	P	QH
FIRST QUARTER													
ENG	100	Oral Communications	3	0	0	3	FIFTH QUARTER						
PSC	101	Introduction to Law Enforcement	5	0	0	5	PSY	102	General Psychology	5	0	0	5
PSC	102	Criminology	5	0	0	5	MAT	115	Fundamental Concepts of Mathematics	3	0	0	3
SOC	102	Principles of Sociology	5	0	0	5	PSC	115	Criminal Law I	5	0	0	5
			18	0	0	18	PHI	101	Introduction to Philosophy	3	0	0	3
SECOND QUARTER													
ENG	101	Introduction to Written Communications	3	0	0	3	SIXTH QUARTER			16	0	0	16
POL	102	Government—National	5	0	0	5	ENG	103	Technical Report Writing	3	0	0	3
PSC	220	Police Organization and Administration	5	0	0	5	PSC	116	Criminal Law II	5	0	0	5
SOC	209	Social Problems	3	0	0	3	PSC	210	Criminalistics I	3	2	0	4
			16	0	0	16	SOC	210	Minorities in American Society	3	0	0	3
THIRD QUARTER													
ENG	102	Composition	3	0	0	3	SEVENTH QUARTER			14	2	0	15
POL	103	Government—State and Local	5	0	0	5	ENG	115	Appreciation of Literature	3	0	0	3
PSC	120	Administration of Justice	4	0	0	4	PSY	108	Abnormal Psychology	5	0	0	5
BIO	101	General Biology I	3	2	0	4	PSC	211	Criminalistics II	3	2	0	4
			15	2	0	16	MAT	116	Fundamental Concepts of Statistics	5	0	0	5
FOURTH QUARTER													
PSC	121	Police Science Seminar and Practicum	3	0	10	4				16	2	0	17
PSC	110	Police Role in Crime and Delinquency	5	0	0	5	C - Class						
BIO	102	General Biology II	3	2	0	4	L - Lab						
			11	2	10	13	P - Practicum						
							QH - Quarter Hours Credit						

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**BIO 101 General Biology I** 3 2 0 4  
 A functional course in biology with emphasis on scientific reasoning, cellular structure and function, human anatomy and physiology, and the diversity of living organisms. Prerequisite: None.

**BIO 102 General Biology II** 3 2 0 4  
 A continuation of BIO 101 with emphasis on reproduction and development, inheritance, ecological principles, and evolution by natural selection. Prerequisite: BIO 101.

**ENG 100 Oral Communication** 3 0 0 3  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
 The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**ENG 115 Appreciation of Literature** 3 0 0 3  
 The student will sample the literary genres of prose and poetry drawn from varied cultures and periods. He will analyze different styles and techniques of writing used in some of the masterpieces of literature. Prerequisite: None.

**MAT 115 Fundamental Concepts of Mathematics** 3 0 0 3  
 A general review of fundamental mathematics with emphasis on algebra and algebraic applications. Topics covered are the real number system, properties of numbers, sets, functions and relations, graphing, solution of equations and inequalities, polynomials, powers and roots, and basic trigonometry. Prerequisite: None.

**MAT 116 Fundamental Concepts of Statistics** 5 0 0 5  
 A course in statistics designed to support all technology courses. Topics covered are frequency distributions, graphic representation, percentiles, measures of central tendency, variability, normal curve distribution, sampling error, significance of difference between means, correlation, statistics and the design of experiment, and chi-square. Prerequisite: None.

**PHI 101 Introduction to Philosophy** 3 0 0 3  
 An introductory survey of the field, designed to make the student familiar with the main streams of philosophical thought from ancient to modern times. Students will be given opportunity to examine major concepts and apply them to their own value systems. Prerequisite: None.

**POL 102 Government—National** 5 0 0 5  
 English and Colonial background, the Articles of Confederation and the framing of the federal Constitution. The nature of the federal union; states' rights, federal powers, political parties. The general organization and the functioning of the national government. Prerequisite: None.

**POL 103 Government — State and Local** 5 0 0 5  
 A study of state and local government, state-federal interrelationships, the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, revenues and appropriations. Special attention will be given to North Carolina. Prerequisite: None.

**PSC 101 Introduction to Law Enforcement** 5 0 0 5  
 A general course designed to familiarize the student with a philosophy and history of law enforcement, including its legal limitations in a democratic republic, a survey of the primary duties and responsibilities of the various law enforcement agencies, a delineation of the basic processes of justice, an evaluation of law enforcement's current position, and an orientation relative to law enforcement as a vocation. Prerequisite: None.

**PSC 102 Criminology** 5 0 0  
 A general course designed to introduce the students to the social origins of criminal the administration of criminal justice, the causes of criminal behavior, and the prevention and control of crime, including the individual rehabilitation and modification of social environment. Prerequisite: None.

**PSC 110 Police Role in Crime and Delinquency** 5 0 0  
 The study primarily concerned with scientific efforts to understand crime and understand man in relation to crime phenomena. It deals with those definitions, formulations of crime and criminals upon which an adaptation system of crime must be based. It examines the law as the basic framework within which deviations of a peculiar character assume their functions as criminal acts and broad principles upon which a science of criminology must rest. Prerequisite: None.

**PSC 115 Criminal Law I** 5 0 0  
 Designed to present a basic concept of criminal law and to create appreciation of rules under which one lives in our system of government. Prerequisite: None.

**PSC 116 Criminal Law II** 5 0 0  
 A continuation of the study of the basic concepts of criminal law and why the operates in its individual ways, jurisdiction, the criminal act, the mental element, criminal responsibility. The study proceeds to detailed examinations of the numerous specific criminal areas. Prerequisite: Criminal Law I.

**PSC 120 Administration of Justice** 4 0 0  
 A review of court systems; procedures from incident to final disposition; the six principal functional areas for the administration of justice to include police, prosecutor, criminal courts, probation, institutions, and parole; and principles of federal, state, and civil as they apply to and affect law enforcement. Prerequisite: None.

**PSC 121 Police Science Seminar and Practicum** 3 0 10  
 A general course designed to provide the student with an opportunity to pursue, supervision, work experience in the field of criminal justice, thus providing him motion and a sense of realism in his field of study. The three hour seminar each week devoted to review and discussion of field experiences. Prerequisite: Recommendation of the Department Chairman.

**PSC 210 Criminalistics I** 3 2 0  
 This course introduces the student to the scientific tools (resources) that are used in study of criminal activity. Principles of biology, chemistry, and physics, provide the for readings, lectures, demonstrations, and experiments to acquaint the student with processes involved and the significance of the findings in conducting investigations in the collection and preservation of evidence. Emphasis is placed upon specific types of offenses such as arson, illegal drugs, sex crimes, larceny, burglary and homicide.

**PSC 211 Criminalistics II** 3 2 0  
 Continuation of the study of criminal investigation including a general survey of methods and techniques used in modern scientific investigations of crime, with emphasis upon the practical use of these methods by students. Laboratory techniques will demonstrated and the student will participate in actual use of the scientific equipment. Prerequisite: PSC 210.

**PSC 220 Police Organization — Administration** 5 0 0  
 Introduction to principles of organization and administration, discussion of the various functions; e.g., personnel management, police management, training communication records, property, maintenance and miscellaneous services. Prerequisite: None.

**PSY 102 General Psychology** 5 0 0  
 A study of the various fields of psychology; the developmental process, motivation, emotion, frustration and adjustment, mental health, attention and perception, problem of group living. Attention is given to applications of these topics to problems of self-understanding and adjustment to the demands of society. Prerequisite: None.

**PSY 108 Abnormal Psychology** 5 0 0  
 This course offers an introduction to behavior pathology. The etiology, diagnosis, prognosis of abnormal behavior. Neurosis, psychosis, character disorders, and psychosomatic reactions are among the topics included in the study. Prerequisite: PSY 101 equivalent.

**SOC 102 Principles of Sociology** 5 0 0  
 An introductory course in the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of man's behavior in relation to other men, general laws affecting the organization of such relationships and the effects of social on human personality and behavior. Prerequisite: None.

**SOC 209 Social Problems** 3 0 0  
 An analysis of modern social organization and disorganization as they relate to various social problems in contemporary American society. Prerequisite: SOC 102.

**SOC 210 Minorities in American Society** 3 0 0  
 A study of the historical and scientific questions of race: a study of sociocultural patterns in various inter-racial areas; and inquiry into the problems of conflict adjustment.





Curriculum By Quarters

Course Title

FIRST QUARTER

Course Title	C	L	P	QH
107 Anatomy and Physiology I	3	2	0	4
103 Chemistry—General and Inorganic	3	2	0	4
100 Oral Communications	3	0	0	3
113 Allied Health Mathematics I	3	0	0	3
115 Medical Terminology I	1	0	0	1
113 Departmental Orientation and Ethics and Elementary Radiation Protection	1	0	3	2
	14	4	3	17

SECOND QUARTER

Course Title	C	L	P	QH
105 General Physics I	4	0	0	4
3008 Cardiopulmonary Resuscitation (CPR)	0	0	0	0
108 Anatomy and Physiology II	3	2	0	4
101 Introduction to Written Communication	3	0	0	3
114 Allied Health Mathematics II	3	0	0	3
116 Medical Terminology II	1	0	0	1
114 Basic Essentials of Radiologic Technology	3	0	12	7
	17	2	12	22

THIRD QUARTER

Course Title	C	L	P	QH
169 Fundamentals of Disease Processes	4	0	0	4
169 Social Psychology of Health and Illness	3	0	0	3
139 Topographical Anatomy	2	0	0	2
106 General Physics II	4	0	0	4
139 Positioning and Related Anatomy I	3	0	0	3
138 Practicum I	0	2	15	6
	16	2	15	22

FOURTH QUARTER

Course Title	C	L	P	QH
259 Positioning and Related Anatomy II	3	0	0	3
125 Radiographic Darkroom	2	0	0	2
137 Radiographic Technique I	3	0	0	3
238 Practicum II	0	2	24	9
161 Open Lab Practicum I	0	0	6	2
	8	2	30	19

- Class  
- Lab  
- Practicum  
+ - Quarter Hours Credit

## RADIOLOGIC TECHNOLOGY T-061

Radiologic Technology entails the use of x-ray and other forms of ionizing radiation for diagnosis and treatment of injury and disease.

The student becomes proficient in the operation of radiographic equipment and gains a thorough knowledge of accessories and photographic principles to produce high quality radiographs. Emphasis is placed upon the positioning of various body parts, technical factors to minimize radiation exposure, pathological conditions, and specialized procedures employed for diagnosis. There is detailed analysis of radiographs for proper positioning, anatomical structure visualization, the use of appropriate accessories and technical exposure factors.

This knowledge is applied as a planned learning experience under the supervision of staff technologists and clinical instructors at North Carolina Baptist Hospital and Forsyth Memorial Hospital.

After satisfactory completion of the program, the student is eligible for examination by the American Registry of Radiologic Technologists.

Total credit hours: 158

Course Title

FIFTH QUARTER

Course Title	C	L	P	QH
289 Film Critique I	1	0	0	1
269 Positioning and Related Anatomy III	3	0	0	3
216 Radiation Physics	3	0	0	3
237 Radiographic Technique II	3	0	0	3
261 Pediatric and Operating Room Radiography	1	0	0	1
248 Practicum III	0	2	21	8
262 Open Lab Practicum II	0	0	6	2
	11	2	27	21

SIXTH QUARTER

Course Title	C	L	P	QH
290 Film Critique II	2	0	0	2
279 Positioning and Related Anatomy IV	3	0	0	3
249 Radiation Protection	1	0	0	1
258 Practicum IV	0	4	24	10
263 Open Lab Practicum III	0	0	6	2
	6	4	30	18

SEVENTH QUARTER

Course Title	C	L	P	QH
291 Film Critique III	2	0	0	2
283 Radiographic Pathology	2	0	0	2
233 Seminar I	1	0	0	1
250 Special Procedures I	2	0	0	2
205 Nuclear Medicine and Radiation Therapy	1	0	0	1
268 Practicum V	0	2	24	9
264 Open Lab Practicum IV	0	0	6	2
	8	2	30	19

EIGHTH QUARTER

Course Title	C	L	P	QH
292 Film Critique IV	2	0	0	2
257 Departmental Administration	1	0	0	1
234 Seminar II	1	0	0	1
252 Special Procedures II	2	0	0	2
278 Practicum VI	0	4	24	10
265 Open Lab Practicum V	0	0	6	2
	6	4	30	18

RDT 266 Clinical Internship\*\*

\*\*This is a special course that will be taken following the end of the Eighth Quarter. Students will register for the course during the regular Eighth Quarter Registration.

\*CPR required for graduation. The CPR course may be taken anytime during the first two quarters. However, current certification must be maintained for the duration of the program.

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**BIO 107 Anatomy and Physiology I** 3 2 0 4  
 An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II** 3 2 0 4  
 A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 115 Medical Terminology I** 1 0 0 1  
 The first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology I.

**BIO 116 Medical Terminology II** 1 0 0 1  
 The second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology II. Prerequisite: BIO 115.

**BIO 139 Topographical Anatomy** 2 0 0 2  
 The student receives a coordinated approach to aid him in visualizing his patient's anatomy. This reconstructive technique builds the body from its skeleton toward the surface. Living anatomy is stressed throughout, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: BIO 107 and BIO 108.

**BIO 169 Fundamentals of Disease Processes** 4 0 0 4  
 The student is introduced to the major processes involved in producing pathological entities and disorders in man and how such states interfere with normal physiology. After this knowledge of diseases and abnormal states is acquired, it is correlated with the more commonly seen pathology in clinical practices. Emphasis will then be placed upon the fundamental principles of microbiology, the relationship of microorganisms to disease, modes of transmission, control and the etiological agents of infectious diseases. Prerequisites: BIO 107 and BIO 108.

**CHM 103 Chemistry** 3 2 0 4  
 Students will be introduced in lecture to important chemical principles fundamental to the understanding of life processes. This will include a foundation in general and organic chemistry followed by the essential features of organic chemistry which lays the groundwork for the study of the biochemistry of living systems. Students are afforded the opportunity to expand their knowledge through classroom discussion and through laboratory work. The laboratory experiments are designed in some cases to introduce specific principles and in other cases to supplement and reinforce material introduced in lecture.

**ENG 100 Oral Communication** 3 0 0 3  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.



**ENG 101 Introduction to Written Communication** 3 0 0 3  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**MAT 113 Allied Health Mathematics I** 3 0 0 3  
 The first of a series of two courses designed to develop and maintain a high level of proficiency in basic mathematical skills and unit of measurement and to apply this knowledge to problems dealing with patient care. Topics covered are: fundamental facts about whole numbers; fractions; percents; expanded notation; positive and negative numbers; functions and graphs; trigonometric functions; and linear equations. Prerequisite: None.

**MAT 114 Allied Health Mathematics II** 3 0 0 3  
 The second of a series of two courses designed to develop and maintain a high level of proficiency in basic mathematical skills. Topics covered are: quadratic equations; exponents and radicals; logarithms; ratio and proportion; metric and apothecary systems of measurement; mathematics of drugs and solutions; and basic statistics. Prerequisite: MAT 113.

**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0  
 This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardiopulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

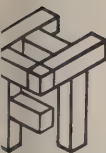
**PHY 105 General Physics I** 4 0 0 4  
 This course is the first in a series of two courses which introduces the basic topics of physics. The topics covered include units of measurement, motion, force, momentum, forces of nature, energy, temperature, heat, electric fields and currents. Quantitative problems include the use of elementary algebra. Prerequisite: MAT 113 or MAT 10.

**PHY 106 General Physics II** 4 0 0 4  
 This course is the second in a series of two courses which introduces the basic topics of physics. The topics covered include magnetism, electromagnetism, waves and radiation principles of light applied to x-rays, elementary quantum concepts of atoms and atomic radiation. Quantitative problems include the use of elementary algebra. Prerequisite: PHY 105.

**PSY 169 Social Psychology of Health and Illness** 3 0 0 3  
 In studying how culture defines one's responses to illness, both the psychological and sociological factors which play such an eminent part in one's development will be investigated. The cultural principles attributed to illness, symbols of illness, and situations associated with illness not only illustrate how illness affects family patterns of development, but also how such psychological and sociological principles affect patient-professional, family-patient, and family-professional relationships.

**RDT 113 Departmental Orientation and Ethics and Elementary Radiation Protection** 1 0 0 3  
 This course is designed to introduce the student to the clinical setting. Emphasis is placed upon the functions of the x-ray department and ethics of the medical profession. The basic concepts of radiation protection of both the student and patient is introduced and practiced in the clinical setting. Prerequisite: None.



**RT 114 Basic Essentials of Radiologic Technology 3 0 12 7**

The student is introduced to the basic essentials of Radiologic Technology. Included is a preliminary overview of technical factors, positioning, and radiographic accessories. The student uses the clinical hours to fortify these basic essentials. Prerequisite: RDT 113.

**RT 125 Radiographic Darkroom 2 0 0 2**

This course includes lectures, demonstrations, and experiments designed to instruct in the proper use of various photographic chemicals and techniques producing radiographs of highest quality. Prerequisite: None.

**RT 137 Radiographic Technique I 3 0 0 3**

This course introduces the student to the basic concepts of radiographic production. Prerequisite: None.

**RT 138 Practicum I 0 2 15 6**

Clinical and energized laboratory experience is utilized with special emphasis on the positioning, technique and accessories used in radiography of the upper and lower extremities. Prerequisite: RDT 114.

**RT 139 Positioning and Related Anatomy I 3 0 0 3**

This course will deal with radiographic positioning of the upper extremity, shoulder, elbow, wrist, hand, foot, ankle and lower leg. Special emphasis is placed upon the osseous radiographic anatomy of the particular structure. Prerequisites: BIO 108, 115, 116.

**RT 161 Open Lab Practicum I 0 0 6 2**

This course consists of clinical experience in RDT 238 as conducted under night and weekend emergency conditions. This course must be taken concurrently with RDT 238. Prerequisite: RDT 114.

**RT 205 Nuclear Medicine and Radiation Therapy 1 0 0 1**

The principles, equipment, and techniques in nuclear medicine and radiation therapy and their application toward the treatment of injury and illness are presented in this course.

**RT 216 Radiation Physics 3 0 0 3**

The basic principles behind matter, radioactivity, magnetism, electricity, as related to x-ray technology are presented in this course. Prerequisite: PHY 106.

**RT 233 Seminar I 1 0 0 1**

This course presents a comprehensive study of radiology and the student's role in the medical profession as an x-ray technologist. Prerequisite: None.

**RT 234 Seminar II 1 0 0 1**

This course provides an opportunity for the student to do extra research and review in any aspect of technology in which he has special interest. Guest speakers will present to the students techniques, routines, and policies as carried forth at their respective hospitals. Prerequisite: RDT 233.

**RDT 237 Radiographic Technique II 3 0 0 3**

An indepth study is presented in the selection of exposure factors, and the proper use of grids, cones, and other devices which may be employed to produce high quality radiographs. Prerequisite: RDT 137.

**RDT 238 Practicum II 0 2 24 9**

Clinical and energized laboratory experience is utilized with special emphasis on the positioning, technique and accessories used in radiography of the knee, femur, hip, pelvis, and vertebral column. Prerequisite: RDT 138.

**RDT 248 Practicum III 0 2 21 8**

Clinical and energized laboratory experience is utilized with special emphasis on the positioning, technique and accessories used in radiography of the skull, sinuses, and mastoids. Prerequisite: RDT 238.

**RDT 249 Radiation Protection 1 0 0 1**

Protective regulations, monitoring methods, and techniques for reading radiation exposure of patients and technologists are presented in this course. Prerequisite: None.

**RDT 250 Special Procedures I 2 0 0 2**

This course provides an indepth study of radiographic procedures employing body section radiograph stereography, dental radiography, etc. Prerequisite: None.

**RDT 252 Special Procedures II 2 0 0 2**

This course consists of a study of all phases of angiography including cerebral, vascular, and cardioangiography. Prerequisite: RDT 250.

**RDT 257 Departmental Administration 1 0 0 1**

This course is designed to acquaint the student with the function, organization, supervision, and financial arrangements in the Radiology Department. Prerequisite: None.

**RDT 258 Practicum IV 0 4 24 10**

Clinical and energized laboratory experience is utilized with special emphasis on the positioning, technique and accessories used in radiography of the chest, abdomen, gastrointestinal tract, and other specialized body systems. Prerequisite: RDT 248.

**RDT 259 Positioning and Related Anatomy II 3 0 0 3**

This course includes radiographic positioning of the proximal lower extremity, hip, pelvis, and the entire vertebral column. Prerequisite: RDT 139.

**RDT 261 Pediatric and Operating Room Radiography 1 0 0 1**

This course introduces the student to various positions, technical factors, and special problems associated with radiography of infants and children. This course also deals with various procedures encountered during surgery. Prerequisite: RDT 137.

**RDT 262 Open Lab Practicum II 0 0 6 2**

This course consists of clinical experience in RDT 248 as conducted under night and weekend emergency conditions. This course must be taken concurrently with RDT 248. Prerequisite: RDT 161.

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**RDT 263 Open Lab Practicum III** 0 0 6 2  
 This course consists of clinical experience in RDT 258 as conducted under night and weekend emergency conditions. This course must be taken concurrently with RDT 258. Prerequisite: RDT 262.

**RDT 264 Open Lab Practicum IV** 0 0 6 2  
 This course consists of clinical experience in RDT 268 as conducted under night and weekend emergency conditions. This course must be taken concurrently with RDT 268. Prerequisite: RDT 263.

**RDT 265 Open Lab Practicum V** 0 0 6 2  
 This course consists of clinical experience in RDT 278 as conducted under night and weekend emergency conditions. This course must be taken concurrently with RDT 278. Prerequisite: RDT 264.

**RDT 266 Clinical Internship** 0 0 15 2  
 This course consists of continued study in all aspects of diagnostic radiology. The student performs radiographic examinations mainly under indirect supervision by instructors and staff technologists. The student is evaluated for excellence in examinations and procedures performed. Prerequisites: RDT 292, 257, 234, 252, 278, 265.

**RDT 268 Practicum V** 0 2 24 9  
 Clinical and energized laboratory experience is utilized with special emphasis on the positioning, technique and accessories used in radiography of specialized radiographic procedures employing techniques such as, body section radiography, stereography, etc. Prerequisite: RDT 258.

**RDT 269 Positioning and Related Anatomy III** 3 0 0 3  
 This course covers radiographic positioning of the entire skull, to include paranasal sinuses, mandible, and mastoids. Prerequisite: RDT 259.

**RDT 278 Practicum VI** 0 4 24 1  
 Clinical and energized laboratory experience is utilized with special emphasis on positioning, technique and accessories used in radiography of specialized radiographic procedures including angiographic examinations. Prerequisite: RDT 268.

**RDT 279 Positioning and Related Anatomy IV** 3 0 0  
 This course is a study of the radiographic positioning of the chest, abdomen, gas intestinal tract, urinary tract, and other specialized body systems. Prerequisite: RDT 268.

**RDT 283 Radiographic Pathology** 2 0 0  
 This is a course provided primarily for the x-ray student relating pathological conditions and their appearance on the radiography. Prerequisite: None.

**RDT 289 Film Critique I** 1 0 0  
 This course is a review of films obtained by the student with consideration of positioning and technique. Prerequisite: None.

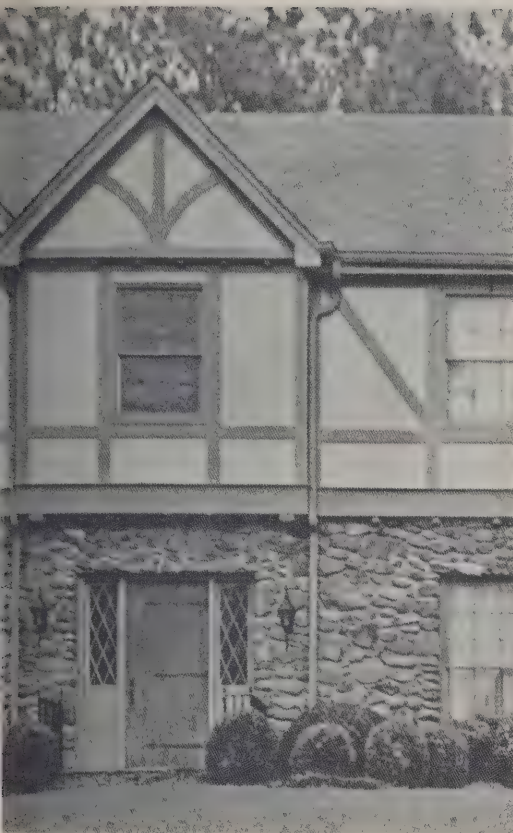
**RDT 290 Film Critique II** 2 0 0  
 This course is an evaluation of diagnostic film quality as related to proper use of radiographic accessories. Prerequisite: RDT 289.

**RDT 291 Film Critique III** 2 0 0  
 This course consists of a critical analysis of radiographs obtained by the student with emphasis upon special techniques and fluorographic procedures. Prerequisite: RDT 290.

**RDT 292 Film Critique IV** 2 0 0  
 In this course, the student presents films for critical evaluation of advanced radiographic procedures with emphasis upon visual anatomical structures and pathological conditions. Prerequisite: RDT 291.







## REAL ESTATE T-127

Real estate, a major business activity in North Carolina, is much broader and more complex than is commonly realized.

The field of real estate involves helping people find satisfactory homes and helping industry find profitable locations; it includes the planning and developing necessary to make the highest and best use of land and buildings. Other aspects of the industry include the appraising and the managing of real property and finding capital for construction and rehabilitation.

The man or woman entering the real estate industry will be involved in rendering a wide variety of fundamental services to meet the growing housing demands of business and industry. Trained men and women are needed to assist in locating families, locating factories and offices, financing real estate transactions, managing commercial buildings and multiple dwellings, and appraising real property. The real estate industry offers an opportunity for personal achievement as well as the satisfaction of doing work of the highest importance in the community.

Total credit hours: 115.

### Curriculum By Quarters

#### Course Title

#### FIRST QUARTER

Course Title	C	L	P	QH
ENG 101 Introduction to Written Communication	3	0	0	3
RE 162 Fundamentals of Real Estate I	5	0	0	5
BS 101 Introduction to Business	5	0	0	5
BS 109 Business Mathematics	5	0	0	5
	18	0	0	18

#### SECOND QUARTER

Course Title	C	L	P	QH
ENG 102 Composition	3	0	0	3
RE 163 Fundamentals of Real Estate II	5	0	0	5
ECON 102 Economics I	3	0	0	3
BS 120 Accounting I	4	0	3	5
	15	0	3	16

#### THIRD QUARTER

Course Title	C	L	P	QH
ENG 100 Oral Communication	3	0	0	3
ECON 104 Economics II	3	0	0	3
BS 121 Accounting II	4	0	3	5
BS 105 Architectural Materials and Methods I	3	2	0	4
	13	2	3	15

#### FOURTH QUARTER

Course Title	C	L	P	QH
BS 239 Marketing	5	0	0	5
BS 164 Real Estate Law	5	0	0	5
BS 292 Appraisal I	3	0	0	3
Elective*	3	0	0	3
	16	0	0	16

#### Course Title

#### Hours Per Week

#### FIFTH QUARTER

Course Title	C	L	P	QH
BUS 293 Appraisal II	3	2	0	4
BUS 209 Real Estate Finance	5	0	0	5
PSY 206 Applied Psychology	3	0	0	3
BUS 216 Real Estate Sales	3	0	0	3
Elective*	3	0	0	3
	17	2	0	18

#### SIXTH QUARTER

Course Title	C	L	P	QH
ENG 206 Business Communications	3	0	0	3
BUS 294 Appraisal III	3	2	0	4
BUS 296 Property Management	3	0	0	3
BUS 228 Real Estate Investment and Taxation	3	0	0	3
BUS 247 Business Insurance	3	0	0	3
	15	2	0	16

#### SEVENTH QUARTER

Course Title	C	L	P	QH
BUS 236 Land Development	3	2	0	4
BUS 231 Real Estate Merchandising	3	0	0	3
BUS 238 Land Use Policy & Governmental Influences on Real Estate	3	2	0	4
BUS 235 Business Management	5	0	0	5
	14	4	0	16

\*Unspecified electives may be any course in any associate degree program provided student meets prerequisites.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 101 Introduction to Business** 5 0 0 5  
 A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management. Prerequisite: None.

**BUS 109 Business Mathematics** 5 0 0 5  
 Emphasis on the fundamental operations and their application to business problems. Topics covered include sales records, inventories, commissions, markups, depreciation, and interest. Prerequisite: None.

**BUS 120 Accounting I** 4 0 3 5  
 The study of the principles, techniques and tools of the accounting process. Includes the collecting, summarizing, analyzing and reporting of financial information. Emphasizes application of the principles learned. Prerequisite: None.

**BUS 121 Accounting II** 4 0 3 5  
 Major attention given to the procedures involved in the recording of receivables, payables, inventories, deferrals, accruals, plant assets, and payrolls. Emphasizes application of the processes learned. Prerequisite: BUS 120.

**BUS 162 Fundamentals of Real Estate I** 5 0 0 5  
 Fundamental principles and theories of real estate are covered including terminology, North Carolina's licensing laws, ethics, legal environment, forms and instruments, mathematics, finance; closing statements and procedures. Prerequisite: None.

**BUS 163 Fundamentals of Real Estate II** 5 0 0 5  
 This course is a continuation of BUS 162 Fundamentals of Real Estate I. Theory and practice of real estate are covered including methods of financing, appraisals, advertising and marketing. Prerequisite: BUS 162.

**BUS 164 Real Estate Law** 5 0 0 5  
 A survey course of law as it relates to real estate activities including the legal aspects pertaining to the sale, purchase and management of real property. Special emphasis is placed on the legal steps needed to handle real estate transactions from the preparation of the listing contract to the closing statement. Prerequisite: None.

**BUS 209 Real Estate Finance** 5 0 0 5  
 A study of real estate finance including an analysis of financial institutions, techniques, and instruments necessary in real estate. Topics include the sources of funds, types of mortgages, role of government agencies, interest rates, loan costs, closings, and competition in the money market.

**BUS 216 Real Estate Sales** 3 0 0 3  
 A study of the current sales techniques in the real estate industry, including problems in selling as well as emphasis on consumer motivation and reactions. Particular emphasis is placed on morals and ethics related to the sale of real property. Other topics include the methods of securing property listings and prospective customers, bringing the prospect and property together, the use of advertising in the selling function, the basic development of a sales plan and sales presentation. Prerequisite: None.

**BUS 228 Real Estate Investments and Taxation** 3 0 0 3  
 A study of fundamental investment concepts including location, timing and methods of financing, designed to provide the prospective investor with a guide to successful real estate investment. Emphasis will be placed on investment during the development process, what to buy and how to buy. Other topics to be discussed are how to take title for individual ownerships or partnerships, when to invest in real estate corporations and trusts, tax consequences and investment, and the influence of federal and state laws on real estate investments. Prerequisite: None.

**BUS 231 Real Estate Merchandising** 3 0 0 3  
 A survey of the field of real estate advertising with emphasis on the relationship to the market structure of our economy. Prerequisite: None.

**BUS 235 Business Management** 5 0 0 5  
 An introduction to the concepts of business and other organizational management. Analysis and practice of management procedures. Includes planning and decision-making, organizational structures and behavior, leadership and motivation, and resources control. Prerequisite: None.

**BUS 236 Land Development** 3 2 0 4  
 A study of the land and population economics of land utilization and the development factors related to manufacturing, labor, transportation and commerce in or near the development location. Prerequisite: None.

**BUS 238 Land Use Policy and Governmental Influences on Real Estate** 3 2 0 4  
 A study of the local and national trends in the development, use and value of real property, as well as governmental policies and their effect on the real estate market. Skills are developed in the analysis, research and correlation of the various trends, policies, and factors affecting real estate. Prerequisite: None.

**BUS 239 Marketing** 5 0 0  
 A study of the principles and problems of marketing goods and services in a free enterprise economy. Emphasizes product selection and development, promotion, channels of distribution and pricing. Prerequisite: None.

**BUS 247 Business Insurance** 3 0 0  
 A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. Prerequisite: None.

**BUS 292 Appraisal I** 3 0 0  
 A study of the principles and theory of appraising real property. Topics studied include site evaluation, building materials and components, methods of appraising professional organizations and developing and operating an appraisal business. Prerequisite: None.

**BUS 293 Appraisal II** 3 2 0  
 A study of the methods and techniques used in estimating the value of residential properties. Topics include analysis of economical factors affecting the value of real estate, local, state, federal and neighborhood influences and attitudes, economic factors, and estimation of value. Prerequisites: Appraisal I, BUS 292.

**BUS 294 Appraisal III** 3 2 0  
 A study of the capitalization of income and the income approach to value. Topics covered include an analysis of steps to estimate the value of income-producing properties such as apartments, hotels, motels, office buildings, retail stores, industry, etc.; interest rate recapture rates; capitalization rates; and appraisal of lease interests. Prerequisite: Appraisal II, BUS 293.

**BUS 296 Property Management** 3 0 0  
 A study of the nature of property management, the types of property, lease preparation, protection of property and property maintenance. Other topics include fair housing, tenant selection, advertising, ethics, budgeting, and associations with people. Prerequisite: None.

**CIV 105 Architectural Materials and Methods I** 3 2 0  
 Emphasizes materials used in the construction of architectural structures. Field trip to construction sites and study of manufacturer's specifications for materials. Proper and standard sizes of structural materials, and construction techniques included. Prerequisite: None.

**ECO 102 Economics I** 3 0 0  
 A study of macroeconomics, which treats the economy as a whole. Included is a study of Gross National product, full employment, business fluctuations, economic growth, and the expansion of bank credit. Prerequisite: None.

**ECO 104 Economics II** 3 0 0  
 A further study into the function of the United States' economy as well as a look at world economics. A study of prices, competition, nonprice competition and income distribution in the United States. Includes a study of international trade and economic development, and comparative economic systems. Prerequisite: ECO 102.

**ENG 100 Oral Communication** 3 0 0  
 The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0  
 The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisite: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0  
 This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 206 Business Communications** 3 0 0  
 This course develops skills in techniques in writing business communications. Emphasis is placed on writing letters of claim, adjustment, credit, collection, sales, application, and other specific types of business letters. Prerequisite: ENG 102.

**PSY 206 Applied Psychology** 3 0 0  
 A study of the principles of psychology that will be of assistance in the understanding of interpersonal relationships on the job. Motivation, feelings and emotions are considered with particular reference to on-the-job problems. Other topics investigated include employee selection, supervision, job satisfaction, and industrial conflicts. Attention also given to personal and group dynamics so that the student may learn to apply principles of mental hygiene to his adjustment problems as a worker and as a member of the general community. Prerequisite: None.

**ELECTIVES**  
 Electives are to be selected by the student and his advisor. These elective courses should be consistent with the students' educational needs, interests, and goals. Elective courses may be chosen from any technical curriculum with appropriate advisory approval.





## RESPIRATORY THERAPY TECHNOLOGY/ THERAPIST T-091

The respiratory therapist started in the early 1950's as an oxygen orderly, and has emerged as a highly sophisticated member of the health care team. The therapist works closely with the patient's physician to aid in the treatment of respiratory problems and serves as a physician assistant in many respects.

There are currently over 50,000 respiratory therapy practitioners in the United States, and the future is bright for the respiratory therapy field. With the acute shortage of personnel and the high demand, job opportunities are numerous.

Forsyth Technical Institute offers a two-year program for the respiratory therapist, with classes starting in August each year. Upon completion of the program, graduates are eligible to take the national registry examination and become a registered respiratory therapist (RRT).

Total credit hours: 122

### Curriculum By Quarters

#### Course Title

#### FIRST QUARTER

			C	L	P	QH
IO	107	Anatomy and Physiology I	3	2	0	4
NG	100	Oral Communications	3	0	0	3
HM	103	Chemistry—General and Inorganic	3	2	0	4
IO	115	Medical Terminology I	1	0	0	1
HY	101	Concepts in Physics	3	0	0	3
AT	113	Mathematics I	3	0	0	3
			16	4	0	18

#### SECOND QUARTER

NG	101	Introduction to Written Communication	3	0	0	3
IO	108	Anatomy & Physiology II	3	2	0	4
IO	116	Medical Terminology II	1	0	0	1
TH	105	Theories and Principles I	4	2	0	5
TH	111	Clinical Experience I	0	0	9	3
TH	287	Respiratory Therapy Pharmacology	1	0	0	1
			12	4	9	17

#### THIRD QUARTER

IO	111	Microbiology	3	2	0	4
TH	139	Cardiopulmonary Anatomy & Physiology	3	0	0	3
TH	205	Pulmonary Diseases	4	0	0	4
TH	112	Clinical Experience II	0	0	18	6
UR	3008	Cardiopulmonary Resuscitation	0	0	0	0
			10	2	18	17

#### FOURTH QUARTER

TH	233	Chest Physiotherapy	1	2	0	2
TH	269	Cardiopulmonary Pathophysiology	4	0	0	4
NG	102	Composition	3	0	0	3
TH	123	Clinical Experience III	0	0	9	3
AT	114	Mathematics II	3	0	0	3
EA	149	Pharmacology	3	0	0	3
			14	2	9	18

#### Course Title

#### FIFTH QUARTER

			C	L	P	QH
CHM	104	Organic & Biochemistry	3	2	0	4
SOC	103	Sociology	3	0	0	3
RTH	250	Intensive Respiratory Care	3	0	0	3
RTH	218	Clinical Experience IV	0	0	18	6
RTH	215	Ventilators	2	2	0	3
			11	4	18	19

#### SIXTH QUARTER

ENG	103	Technical Report Writing	3	0	0	3
PSY	101	Psychology	3	0	0	3
RTH	211	Pediatrics	2	0	0	2
RTH	228	Clinical Experience V	0	0	18	6
RTH	268	Pulmonary Functions	3	0	0	3
			11	0	18	17

#### SEVENTH QUARTER

RTH	257	Respiratory & Hemodynamic Monitoring Techniques	3	0	0	3
RTH	238	Clinical Experience VI	0	0	33	11
RTH	241	Respiratory Therapy Department Operations	2	0	0	2
			5	0	33	16

\*The CPR course may be taken any time during the first three quarters. However, current certification must be maintained for the duration of the program.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

# Forsyth Technical Institute

## 2100 Silas Creek Pkwy.

### Winston-Salem, N.C. 27103

**BIO 107 Anatomy and Physiology I** 3 2 0 4  
An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II** 3 2 0 4  
A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 111 Microbiology** 3 2 0 4  
This is a one-quarter course designed to provide an understanding of microbiological principles and applications. Emphasis is placed on microbial classifications, structure and function, host-parasite relationships, and relations to man. Laboratory sessions are concerned with principles of identification, slide techniques, culture methods, and sterile procedures. Prerequisite: None.

**BIO 115 Medical Terminology I** 1 0 0 1  
The first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology I.

**BIO 116 Medical Terminology II** 1 0 0 1  
The second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology II. Prerequisite: BIO 115.

**CHM 103 Chemistry** 3 2 0 4  
Students will be introduced in lecture to important chemical principles fundamental to the understanding of life processes. This will include a foundation in general and organic chemistry followed by the essential features of organic chemistry which lays the groundwork for the study of the biochemistry of living systems. Students are afforded the opportunity to expand their knowledge through classroom discussions and through laboratory work. The laboratory experiments are designed in some cases to introduce specific principles and in other cases to supplement and reinforce material introduced in lecture.

**CHM 104 Organic and Biochemistry** 3 2 0 4  
To familiarize the student with the nomenclature, variety, usefulness and most significant topics in organic and biochemistry. Prerequisite: CHM 103.

**ENG 100 Oral Communication** 3 0 0 3  
The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3  
The course provides a review of basic English grammar and frequent writing exercises which require the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**ENG 102 Composition** 3 0 0 3  
This course will give the student training and practice in writing and thinking through work in the basic logical modes: analysis, comparison and contrast, definition, persuasion, etc. The student will study these various methods of presentation and will then apply the techniques in full-length compositions. The student will also prepare a library research paper. Prerequisite: ENG 101.

**ENG 103 Technical Report Writing** 3 0 0 3  
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the student. Practical application includes the preparation of a technical report, which is related to the student's chosen curriculum. Prerequisite: ENG 102.

**HEA 149 General Pharmacology** 3 0 0 3  
The course will provide the student with a working knowledge of pharmacological effects, side effects, contraindications, and use of drugs. Sterile preparation and the use of pharmacological measuring systems in preparing drugs will also be covered. Prerequisite: None.

**MAT 113 Allied Health Mathematics I** 3 0 0 3  
The first of a series of two courses designed to develop a high level of proficiency in basic mathematical and algebraic skills for the student in a health career. Topics covered are whole numbers, fractions, decimals, percents, algebraic concepts, linear equations, functions and graphs, and trigonometric functions. Prerequisite: None.

**MAT 114 Allied Health Mathematics II** 3 0 0 3  
A continuation of MAT 113. Topics covered are logarithms, ratio and proportion, metric system, apothecaries' system, mathematics of drugs and solutions, and basic statistics. Prerequisite: MAT 113.

**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0  
This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardio-pulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**PHY 101 Concepts in Physics** 3 0 0 3  
Nonmathematical introduction to problems and concepts of physics. The major areas covered are mathematics, properties of mathematics, heat, sound, light, electricity and atomic theory. Emphasis will be on the association of physical principles of everyday phenomenon. Prerequisite: None.

**PSY 101 Psychology** 3 0 0 3  
This course is geared to study the principles of human behavior with reference to thinking, learning, memory, perception, emotional life, individual differences in intelligence, aptitude, and personality, the scientific nature of psychological investigations and research findings related to daily life. Prerequisite: None.

**RTH 105 Theories and Principles I** 4 2 0  
This course will provide the students with knowledge of gas physics, the need for oxygen and the control of ventilation. The theories and principles of oxygen and aer administration along with types of breathing therapies will be discussed in depth. cleaning and sterilization of respiratory therapy equipment will also be discussed. Prerequisite: None.

**RTH 111 Clinical Experience I** 0 0 9  
The student will assist respiratory therapy personnel in the performance of various duties to include oxygen, humidity, and aerosol therapy, plus the setting up, maintaining, and cleaning of equipment. Prerequisite: RTH 139.

**RTH 112 Clinical Experience II** 0 0 18  
A continuation of RTH 111, Clinical Experience I. The student will perform various duties to include oxygen, humidity and aerosol therapy; the assembly, maintenance, cleaning of equipment; and the delivery of IPPB therapy, spontaneous nebulization, and incentive spirometry. Prerequisite: RTH 111, RTH 105.

**RTH 123 Clinical Experience III** 0 0 9  
This course is designed to give the student the opportunity to perform and demonstrate knowledge gained in parallel courses. The student will receive clinical experience chest physiotherapy and blood gas analysis. Prerequisite: RTH 112.

**RTH 139 Cardiopulmonary Anatomy and Physiology** 3 0 0  
This course consists of a concentrated study of the structure of the respiratory system and its physiological relation to the heart and blood vessels. The student shall gain deeper knowledge and be given a more sophisticated approach to these systems. Prerequisite: BIO 108.

**RTH 205 Pulmonary Diseases** 4 0 0  
The etiology, classification, diagnosis, progression, treatment, and prognosis of the frequently encountered pulmonary diseases will be discussed. Prerequisite: RTH 139.

**RTH 211 Pediatrics** 2 0 0  
Normal growth and development, and anatomy and physiology of the newborn through pediatric age groups will be discussed. Disease process of the neonate and pediatric patient will be covered. Mechanical ventilation and critical care of these patients will be discussed in depth. Prerequisite: RTH 205, RTH 269.

**RTH 215 Ventilators** 2 2 0  
The technical aspects of ventilator care will be taught by lecture and lab session. Emphasis will be placed on maintenance, assembly and operation of the machines used. Prerequisite: RTH 105.

**RTH 218 Clinical Experience IV** 0 0 18  
This course is designed to give the student the opportunity to perform and demonstrate knowledge gained in parallel courses. The students will receive clinical experience intensive respiratory care to include experience in continuous mechanical ventilation. Prerequisite: RTH 123.

**RTH 228 Clinical Experience V** 0 0 18  
This course is designed to give the student the opportunity to perform and demonstrate knowledge gained in parallel courses. The student will receive clinical experience neonatal intensive care, care of the pediatric patient, intensive care of the pediatric patient and pulmonary function testing. Prerequisite: RTH 218.

**RTH 233 Chest Physiotherapy** 1 2 0  
With classroom, laboratory, and clinical experience, the student will be taught methods of evaluation of pulmonary patients. Techniques of breathing exercises, segmental bronchial drainage, and chest percussion in the adult and pediatric patient will be stressed. Prerequisite: RTH 205.

**RTH 238 Clinical Experience VI** 0 0 33  
This course is designed to give the student further clinical experience in the area he/she has already had rotations through. The student will also be introduced to respiratory and hemodynamic monitoring techniques. Critical care will be stressed during this rotation. Prerequisites: RTH 228.

**RTH 241 Respiratory Therapy Department Operations** 2 0 0  
The student will work independently and as a team member in the development of the Respiratory Therapy Department. Budget planning, space requirements, equipment purchase decisions, charges, and personnel management will be discussed. Prerequisite: RTH 228.

**RTH 250 Intensive Respiratory Care** 3 0 0  
An in-depth lecture series involving mechanical ventilation and intensive respiratory care of patients with various medical and surgical problems. Airway control, physiology, diagnosis, mechanical ventilation and intensive care of patients will be discussed. Prerequisite: RTH 205, RTH 269.

**RTH 257 Respiratory and Hemodynamic Monitoring Techniques** 3 0 0  
An in-depth series of lectures designed to give the Respiratory Therapy student a background and understanding of the various Respiratory and Hemodynamic monitoring modalities in use today. Arterial and venous pressure monitoring, Swan-Ganz catheterization, medical mass spectrometry, and equipment calibration techniques will be stressed. Prerequisite: RTH 269.

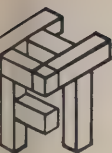
**RTH 268 Pulmonary Function** 3 0 0  
This course is designed to provide the Respiratory Therapy student with a comprehensive knowledge of diagnostic pulmonary function testing. Technical theory, manual calculation, and interpretation of each diagnostic test will be presented. Prerequisites: RTH 205, RTH 269.

**RTH 269 Cardiopulmonary Pathophysiology** 4 0 0  
An in-depth series of lectures designed to acquaint the student with normal and abnormal physiological functions associated with pulmonary and cardiovascular diseases. Prerequisites: RTH 205, RTH 139.

**RTH 287 Respiratory Therapy Pharmacology** 1 0 0  
A lecture course designed to provide the student with a basic working knowledge of respiratory therapy medications. Pharmacological effects, indications, contraindications, drug interactions and side effects will be discussed. Prerequisite: None.

**SOC 103 Sociology** 3 0 0  
The student will examine the social environment in which personality matures, and analysis of the major social institutions as well as the major social process. Attention given to the scope, methods and concepts of sociology. Prerequisite: None.





## ELECTIVES

In order to broaden the educational experience, most of the Associate in Applied Science degree programs provide for elective subjects as part of the degree requirements.

Electives are to be selected by the student and his advisor. These elective courses should be consistent with the student's educational needs, interests and goals. General electives may be chosen from any technical program courses for which the student meets pre-requisites, if applicable. Specified electives should be chosen from courses available within the curriculum department or division.

In the Business Department, for example, business electives may be selected from courses with BUS, ECO, EDP, AIB and ISC course numbers. Such courses appear in the course descriptions on the catalogue pages for individual curricula. Listings or suggestions for appropriate courses are also available from the departments or advisors.

In addition, there are a number of courses offered by the Institute that do not appear in the course descriptions listed under each curriculum. These courses are available for specified or general elective purposes by request and include the following:

	C	L	P	Q	H
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<b>B 236 Trust Functions and Services</b>	4	0	0	4	
This course provides an overview of many of the generally accepted principles of the law of estates, trusts, and agencies as it takes the student on a step-by-step study of trust functions and services encountered in the daily operation of a trust department. Prerequisite: AIB 202.					

<b>IS 125 Accounting Practice Set</b>	1	0	0	1	
A comprehensive practice set involving the principles learned in Accounting I, Accounting II, and Accounting III. The practice set will include business transactions common to sole proprietorships and corporations. Prerequisites: BUS 120, BUS 121, BUS 122.					

<b>IS 130 Career Planning and Job Hunting</b>	2	0	0	2	
An in-depth study of developing realistic career objectives and goals. Emphasis is placed on learning how to sell one's self in the job market and how to set the stage for long-term fulfilling career development. Prerequisite: None.					

<b>IS 141 Medical Vocabulary and Terminology</b>	3	0	0	3	
Provides students with a means to develop an understanding of vocabulary and terminology for clerical employment opportunities in the medical field. Prerequisite: None.					

<b>IS 237 International Banking</b>	4	0	0	4	
This course presents the basic framework and fundamentals of international banking: how money is transferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, international lending, and how money is changed from one currency to another. Prerequisite: None.					

<b>BUS 238 Law and Banking</b>	4	0	0	4	
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This course is designed not only to present an introduction to basic commercial law, but to relate it more specifically to banking and bank transactions. Topics include: contracts; agency and partnerships; corporations; real property; personal property and sales; the Uniform Commercial code; negotiable instruments and bank collections; and secured financing. Prerequisite: None.

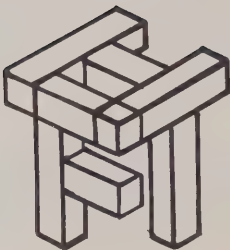
<b>BUS 270 Advanced Accounting</b>	5	0	0	5	
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A study of advanced principles and practices. Special emphasis is placed on the development of worksheet techniques for solution of problems. Accounting procedures related to partnerships, branch accounting and parent-subsidiary relationships are studied in depth. Current publications from professional journals are studied and discussed. Prerequisite: BUS 222.

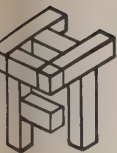
<b>ENG 200 Advanced Speech</b>	3	0	0	3	
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The course is designed for the student who wishes to polish his speaking skills beyond the level achieved in English 100. The student receives instruction in the preparation and delivery of longer oral presentations and in the principles of argumentation, with some practice in informal debate. Analysis of famous speeches is also included. Prerequisite: ENG 100 or college transfer credit for ENG 100.

Forsyth Technical Institute  
2100 Silas Creek Pkwy.  
Winston-Salem, N.C. 27103







## PRE-TECHNICAL PROGRAM

## **PRE-TECHNICAL PROGRAM**

The Pre-Technical program provides students with an opportunity to build academic skills and acquire the background which should facilitate entrance into their desired curriculum program.

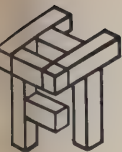
For those applicants to degree programs who, on the basis of test results and past performance, do not qualify for immediate admission to their chosen program of study, non-credit developmental course work is available and is required as a condition of admission.

Students register each quarter for courses selected from a group of courses designed to prepare them for their chosen program and to meet each individual's needs or goals.

Students may then transfer into their curriculum program when the criteria has been met and pre-technical and selected curriculum courses have been completed. All curriculum courses successfully completed will then be applied toward graduation.

Developmental courses are also open to students who wish to take them for personal benefit.





## PRE-TECHNICAL PROGRAM T-099



This program is a full-time course of study which offers preparation, remediation, and guidance for students who, for a variety of reasons, do not meet the specific entrance requirements for the regular curriculum program of their choice. Students who do meet the minimum entrance requirements but whose previous academic records indicate that they may have difficulty in successfully completing their programs are also advised to enter the Pre-Technical program.

The student's academic program will be individually designed to meet his specific preparatory and remedial needs. The courses will be selected from the Pre-Technical offerings and from technical and/or vocational credit courses.

### PRE-TECHNICAL COURSE OFFERINGS

Course Title	C	L	P	QH*
IO 010 Human Anatomy	3	0	0	0(3)
US 010 Introduction to Accounting	5	0	0	0(5)
US 030 Introduction to Shorthand	5	0	0	0(5)
HM 010 Pre-Technical Chemistry	3	2	0	0(4)
VG 001 Spelling	3	0	0	0(3)
VG 005 Language Development I	2	2	0	0(3)
VG 006 Language Development II	2	2	0	0(3)
VG 007 Language Development III	2	2	0	0(3)
VG 008 Language Development IV	2	2	0	0(3)
VG 010 Individualized English	5	0	0	0(5)
VG 021 Basic Reading Skills and Vocabulary I	3	0	0	0(3)
VG 022 Basic Reading Skills and Vocabulary II	3	0	0	0(3)
AT 001 Structure of Arithmetic	5	0	0	0(5)
AT 002 Applied Mathematics	5	0	0	0(5)
AT 003 Algebra	5	0	0	0(5)
AT 004 Pre-Technical Mathematics	5	0	0	0(5)
AT 005 Geometry	5	0	0	0(5)
AT 020 Mathematics for Health Education	3	0	0	0(3)
NT 001 Basic Nutrition	3	0	0	0(3)
NY 001 Pre-Technical Physics	3	2	0	0(4)
IC 010 Study Skills	3	0	0	0(3)
IC 100 Sociology I	0	4	0	2
IC 101 Sociology II	0	4	0	2

\*Equivalent credit hours shown in parenthesis.

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**BIO 010 Human Anatomy** 3 0 0 0

This course is designed to acquaint students with basic knowledge of human anatomy by tracing system pathways. The student may also gain proficiency in medical and biological terminology. Prerequisite: None.

**BUS 010 Introduction to Accounting** 5 0 0 0

Designed to present an overview of the complete bookkeeping cycle including journalizing, posting, summarizing, preparing of financial statements, and closing of books.

**BIO 030 Introduction to Shorthand** 5 0 0 0

This course provides for the introduction of basic shorthand theory, dictation of practiced materials and transcription skills, and develops a fluent reading rate. This is an introduction to Shorthand I.

**CHM 010 Chemistry — Pre-Technical** 3 2 0 0

This is an elementary course in chemistry equivalent to high school. It provides the necessary foundation in chemistry for students who enter: (1) a physical science technical curriculum which requires chemistry at the beginning, or (2) a technical program based on the biological sciences.

Topics and laboratory experiments are planned to teach chemistry which is related to the various chemical aspects of biological science. Laboratory exercises and experiments are designed to teach the fundamentals of chemistry and develop chemical laboratory skills.

**ENG 001 Spelling** 3 0 0 0

The course in basic spelling will emphasize the relationship of symbols to their corresponding sounds. It will stress spelling rules, mnemonics, and techniques in the perceiving and retaining the memory for words as a configuration. Proofreading and dictionary use will also be utilized. During the first four weeks, the student will be required to spend 5 hours in the Learning Lab working with the tape recorder and tapes.

**ENG 005 Language Development I** 2 2 0 0

The first in a series of courses which concentrates on basic reading skills that enable a student to analyze words through phonetic word attack. Prerequisite: Recommendation by the Department Chairman.

**ENG 006 Language Development II** 2 2 0 0

A continuation and specialization in language skills. Prerequisite: Recommendation by the Department Chairman.

**ENG 007 Language Development III** 2 2 0 0

A continuation and specialization in language skills. Prerequisite: Recommendation by the Department Chairman.

**ENG 008 Language Development IV** 2 2 0 0

A continuation and specialization in language skills. Prerequisite: Recommendation by the Department Chairman.

**ENG 010 Individualized English** 5 0 0 0

Designed to reinforce the writing skills of those students who are not ready to attempt successfully the materials in ENG 101, this course enables the student to develop competency in grammar, sentence structure, punctuation, flow of writing and spelling. Prerequisite: If the student's score indicates a need for ENG 021 or ENG 001 these courses should be completed before registering for ENG 010.

**ENG 021 Basic Reading Skills and Vocabulary I** 3 0 0 0

This basic reading course is structured to enable a student who is experiencing decoding difficulties to improve his word attack skills. Dictionary usage, comprehension and vocabulary development will also be included.

**ENG 022 Basic Reading Skills and Vocabulary II** 3 0 0 0

This course is designed to enable the student to develop the ability to analyze words and to increase his vocabulary. Major emphasis will be placed on developing comprehension skills to a level adequate to perform in his curriculum program. Prerequisite: Demonstrate a minimum proficiency in comprehension and word attack skills as determined by the Departmental Test Battery or the CGP cut-off scores.

**MAT 001 Structure of Arithmetic** 5 0

This course is designed to help the student gain and improve his computational skills. Instruction is in the basic operations of arithmetic to include addition, subtraction, multiplication, division, fractions, decimals, and percentages.

**MAT 002 Applied Mathematics** 5 0

This course is a review and reinforcement of the basic mathematical skills used in business mathematics.

**MAT 003 Algebra** 5 0

A course designed to provide the student with the basic understandings and manipulative skills of elementary algebra.

**MAT 004 Pre-Technical Mathematics** 5 0

This course is designed for those students who have had some previous instruction in algebra. Basic concepts of algebra and trigonometry are covered. It includes properties of the real number system, equations, functions, variables and exponents.

**MAT 005 Geometry** 5 0

A course designed to provide the student with the basic understandings and manipulative skills of elementary geometry.

**MAT 020 Mathematics for Health Education** 3 0

This course is designed for the student who is preparing himself for a health career. Topics covered are basic operations of arithmetic, fractions, decimals, percents, and proportion, metric system, apothecaries' system, and mathematics of drug solutions.

**NUT 001 Basic Nutrition** 3 0

The study of basic nutrition with emphasis on functions and sources of nutrients needed for a balanced daily diet. An overview of basic food elements, digestion, absorption and metabolism.

**PHY 001 Pre-Technical Physics** 3 2

A review of some of the basic concepts of physics. The topics included are systems of measurement, force and motion, and the properties of materials. Emphasis is placed on laboratory procedures and graphical analysis.

**SOC 010 Study Skills** 3 0

The objective of this course is to help the student determine his achievement level, develop learning style, plan his learning strategy and develop learning skills necessary for effective academic success.

Opportunity for self-assessment will be provided through standardized tests and individual profile interpretation. A variety of study techniques will be presented with emphasis on using textbooks properly, taking and organizing notes, flash cards, etc., examination skills and library techniques.

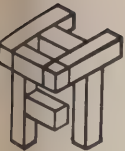
**SOC 100 Sociology I** 0 4

The recognition and development of human potential through emphasis on personal achievements, characteristics and attitudes. Beginning sessions will seek to establish each student those things about himself that he can like and take pride in. Early course students will begin a process of establishing short-term goals. Other processes will include an analysis of strengths, identification of personal values, recognition of latent potential and establishment of long-range goals.

**SOC 101 Sociology II** 0 4

A continuation of the process begun in 100 with more in depth analysis of individual potential and more emphasis on long-range goal establishment. The student is encouraged to be aware of his feelings and to utilize them to advantage. Self-appraisal, development of self-confidence and positive self-image are primary objectives.





## VOCATIONAL DIPLOMA PROGRAM

## VOCATIONAL DIPLOMA PROGRAM

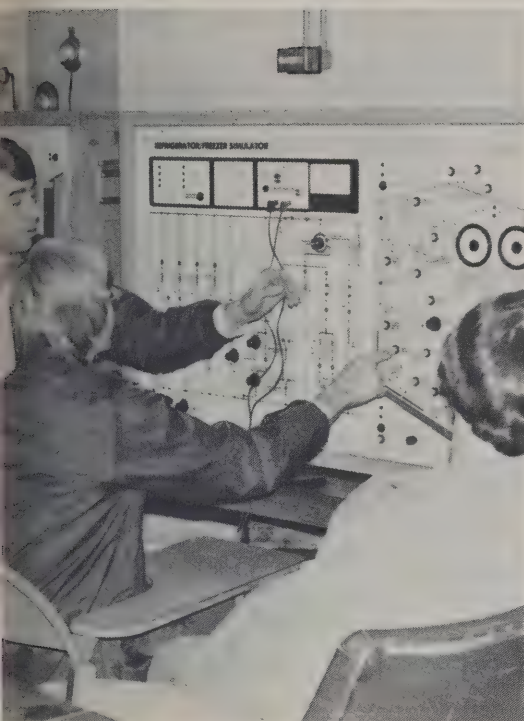
The diploma curricula are practical in nature and are designed to prepare the student for immediate employment opportunities in a skilled trade. All curricula are designed for one year, or four consecutive quarters, of intensive study. (Evening curricula require approximately two years.) Upon completion, the graduate is awarded the State Vocational Diploma. The vocational courses, forming each diploma curriculum, are not designed for transfer to Associate (or higher) degree levels of instruction.

### Sample Course Listing

			C	L	P	QH
DFT	1121	Drafting I	4	0	12	8
↑	↑	↑	↑	↑	↑	↑
Course Prefix	Course Number	Course Title	Classroom Hours per week	Laboratory Hours per week	Practicum per week  (Practical application or clinical experience per week.)	Quarter Hours Credit
			↑	↑	↑	
			↑			
			Contact Hours per week			



## AIR CONDITIONING, REFRIGERATION AND HEATING V-024



During 1972, statewide licensing became mandatory for all installation and major servicing of domestic central heating and cooling systems. A state license is now required for installers of most commercial refrigeration equipment. These and other stricter regulations are dramatic proof of the expanding activity and complexity in this field. It is reasonable to conclude, therefore, that a licensed service man is commanding higher pay and better opportunity compared to an unlicensed worker. This program, besides preparing a graduate to take the state board examination, enables him to find immediate employment in a wide choice of jobs, which include apartment maintenance, industrial maintenance, commercial refrigeration, domestic appliances and servicing, sales engineering, self-employment and—thanks to the growing number of cars with factory-installed air conditioners—the automotive field.

Total credit hours: 81

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
HR 1102 Fundamentals of Refrigeration	7	0	9	10
LD 1111 Air Conditioning Welding	1	0	3	2
AT 1102 Algebra	5	0	0	5
HY 1103 Fundamentals of Electricity	3	2	0	4
	16	2	12	21
<b>SECOND QUARTER</b>				
HR 1103 Domestic and Commercial Refrigeration	6	0	12	10
LC 1111 Applied Electricity II	3	2	0	4
FT 1107 Blueprint Reading	1	0	3	2
NG 1101 Communications I	3	0	0	3
	13	2	15	19
<b>THIRD QUARTER</b>				
HR 1104 Air Conditioning Controls I	5	0	3	6
HR 1105 Principles of Air Conditioning	5	0	9	8
NG 1112 Communications II	3	0	0	3
HY 1116 Solar Energy Conversion Systems	3	2	0	4
	16	2	12	21
<b>FOURTH QUARTER</b>				
HR 1106 Air Conditioning Controls II	3	0	0	3
ET 1101 Heating Systems	6	0	15	11
SY 1101 Human Relations	3	0	0	3
JS 1103 Small Business Operations	3	0	0	3
	15	0	15	20

- Class  
- Lab  
- Practicum  
1 - Quarter Hours Credit

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**AHR 1102 Fundamentals of Refrigeration** 7 0 9 10  
 Identification, selection and use of hand, measuring and special refrigeration tools; power drills, grinders and pipe threaders; copper tubing, fittings and tubing fabrication. Physics related to refrigeration. The basic refrigeration cycle. Classification, characteristics and properties of refrigerants. Types, purpose and principles of operation of compressors, condensers, receivers and evaporators. Assembly operation of a basic refrigeration system. Leak checking, evacuating and charging. Compressor operational checks, System trouble analysis. Prerequisite: None.

**AHR 1103 Domestic and Commercial Refrigeration** 6 0 12 10  
 Types and operating principles of domestic hermetic units. Also domestic absorption units. Operation and trouble analysis of hermetic electrical components and circuits. Repair and maintenance of hermetic units. Calculation of heat loads. Equipment selection and system balance. The purpose, operating principles, installation and maintenance of the following: floats, automatic and thermostatic expansion valves, thermostatic and pressure motor controls, heat exchangers, oil separators, driers, suction filters and minor accessories. Installation, operation, service and trouble analysis of the following equipment: walk-in coolers, display cases, frozen food cabinets, reach-in cabinets, water coolers and ice makers. Also multiple compressor and evaporator system operation. Prerequisite: AHR 1102.

**AHR 1104 Air Conditioning Controls I** 5 0 3 6  
 Theory of electrical and electronic controls. Principles of operations, application, connection and adjustment; pressure regulators and electrical thermostats, dual thermostats, heating-cooling thermostats and humidistats, valves, dampers and pilot positioners, non-bleed controllers, two-position controls. Theory of electrical controls. Principles of operation, application, wiring and adjusting: Series 20, 60, and 90 controls. Prerequisite: None.

**AHR 1105 Principles of Air Conditioning** 5 0 9 8  
 Introduction to air conditioning. Psychrometrics. Principles of load estimating. Air distribution. Applied load estimating. Residential and commercial equipment. Balancing the system. Prerequisite: None.

**AHR 1106 Air Conditioning Controls II** 3 0 0 3  
 Theory of pneumatic controls. Principles of operations, pneumatic application, connection and adjustment; pressure regulators and pneumatic thermostats, dual thermostats, heating-cooling thermostats and humidistats, valves, dampers and pilot positioners, non-bleed controllers, two-position controls. Theory of electrical controls. Principles of operation, application, wiring and adjusting: Series 20, 40, 60 and 90 controls. Prerequisite: None.

**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1107 Blueprint Reading** 1 0 3 2  
 Interpretation and reading blueprints applicable to air conditioning, heating and refrigeration. Development of ability to read and interpret floor plans, elevations, sections, and details found on pictorial, perspective, isometric, oblique, and three-view drawings. Prerequisite: None.

**ELC 1111 Applied Electricity II** 3 2 0 4  
 Fundamental concepts of alternating current including a study of capacitive and inductive effects and resulting phase angle. A study of power, current, voltage and impedance in the AC circuit as applied to AC power machinery and control devices relating to heating and refrigeration systems. Prerequisite: None.

**ENG 1101 Communications I** 3 0 0  
 A course in communicative skills stressing reading, writing, speaking, and listening. A course includes library research, planning and delivering effective oral presentation, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**HET 1101 Heating Systems** 6 0 15  
 Oil burner fundamentals. Operation, control and service of oil burner systems. Heating devices. Operation, control and service of gas burner systems. Installation and servicing electric heating elements and their controls. Principles of operation of water and low pressure systems. Installation and servicing of piping, controls, pumps and coils. Prerequisite: AHR 1105.

**MAT 1102 Algebra** 5 0 0  
 Basic concepts and operations of algebra: historical background of our base-ten number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing, exponents, logarithmic tables and interpolation. Prerequisite: None.

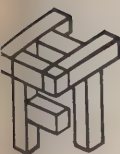
**PHY 1103 Fundamentals of Electricity** 3 2 0  
 Elementary principles of electricity including the structure of matter and electrical theory, basic electrical units, the relationship of current, voltage, resistance and power in series, parallel, and combination circuits.

**PHY 1116 Solar Energy Conversion Systems** 3 2 0  
 This course will include an introduction to the operation and evaluation of various energy conversion systems. The primary emphasis will be on the operation of passive and active solar systems. The student will learn how to select the components for a complete space heating and/or domestic hot water heating system. Prerequisite: MAT 1102 equivalent.

**PSY 1101 Human Relations** 3 0 0  
 Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

**WLD 1111 Air Conditioning Welding** 1 0 3  
 Welding demonstrations by the instructor and practice by the students. Safe and proper methods are demonstrated in the set up and operation of welding equipment. Practice given in brazing, braze welding, hard and soft soldering of ferrous and nonferrous metals. Arc welding and flame cutting methods are practiced as applicable to mechanical repair work that the air conditioning technician will encounter in his field of work. Prerequisite: None.





## AUTOMOTIVE BODY REPAIR V-001

Graduates of this program are qualified for jobs in which they remove dents in car and truck bodies and fenders; remove and replace various sheet metal parts; straighten frames, doors, hoods, and deck lids; operate four kinds of welding equipment; shrink stretched metal and prepare it for painting; paint fenders and panels as well as a complete vehicle, with any of a number of paints and thinners. At the same time, the student is taught to interpret blueprints, charts, service manuals and wiring diagrams, and to prepare repair orders and make estimates and statements for adjusters. Much of the student's time in the shop is spent learning skills and practicing them under circumstances that closely match those met on the job. After gaining experience, many graduates open their own businesses or become body shop foremen, supervisors, or managers.

Total credit hours: 65

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
FIRST QUARTER						
AUT	1111	Automotive Body Repair I	3	0	12	7
MAT	1101	Fundamentals of Mathematics	5	0	0	5
ENG	1101	Communications I	3	0	0	3
WLD	1130	Applied Basic Arc and Gas Welding	1	0	6	3
			12	0	18	18
SECOND QUARTER						
AUT	1112	Automotive Body Repair II	3	0	15	8
WLD	1102	Applied Metal Preparation and Welding	1	0	3	2
PHY	1101	Applied Science I	3	2	0	4
ENG	1112	Communications II	3	0	0	3
			10	2	18	17
THIRD QUARTER						
AUT	1113	Metal Finishing and Painting	2	0	12	6
PSY	1101	Human Relations	3	0	0	3
WLD	1131	Applied Inert Gas Welding	2	0	3	3
AUT	1114	Frame Straightening and Alignment	2	0	6	4
			9	0	21	16
FOURTH QUARTER						
BUS	1103	Small Business Operations	3	0	0	3
IFT	1101	Schematics and Diagrams	0	0	3	1
AUT	1116	Auto And Truck Painting	3	0	21	10
			6	0	24	14

- Class  
- Lab  
- Practicum  
H - Quarter Hours Credit

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**AUT 1111 Automotive Body Repair I 3 0 12 7**

Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present-day vehicles. Application of basic principles of straightening, aligning, and painting of damaged areas. Prerequisite: None.

**AUT 1112 Automotive Body Repair II 3 0 15 8**

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting. Prerequisites: AUT 1111, WLD 1101.

**AUT 1113 Metal Finishing and Painting 2 0 12 6**

This course is intended to teach the student the principles and techniques of refinishing auto bodies. Topics covered are: paint removal, masking, preparing surfaces, paint selection, spray equipment, and practice spraying. Prerequisites: AUT 1112, WLD 1102.

**AUT 1114 Frame Straightening and Alignment 2 0 6 4**

This course is an introduction to the repair of automobile frames and suspension systems. Instruction will include: assessing frame damage, traming, frame straightening equipment, safety, frame straightening and frame repair. Prerequisite: AUT 1112.

**AUT 1116 Auto and Truck Painting 3 0 21 10**

This course is intended to give the student practice in surface preparation and paint application. The following topics will be covered: review of finishes, surface preparation, undercoats, topcoats, and common painting problems. Prerequisite: AUT 1113.

**BUS 1103 Small Business Operations 3 0 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1101 Schematics and Diagrams 0 0 3 1**

Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

**ENG 1101 Communications I 3 0 0 3**

A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II 3 0 0 3**

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms, and reports. Prerequisite: None.

**MAT 1101 Fundamentals of Mathematics 5 0 0 0**

Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**PHY 1101 Applied Science I 3 2 0 0**

An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PSY 1101 Human Relations 3 0 0 0**

Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

**WLD 1102 Applied Metal Preparation and Welding 1 0 3 3**

Welding practices on material applicable to the installation of body panels and repair of doors, fenders, hoods, and deck lids. Student runs beads, does butt and fillet welds. Performs tests to detect strength and weaknesses of welded joints. Safety procedures emphasized throughout the course. Prerequisite: None.

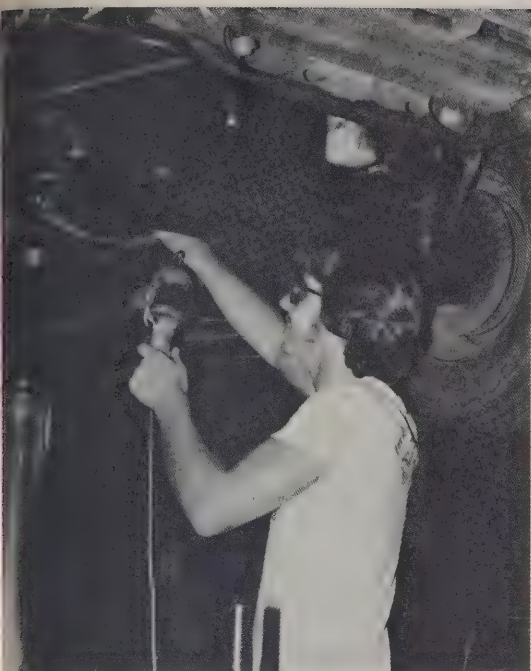
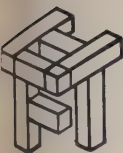
**WLD 1130 Applied Basic Arc and Gas Welding 1 0 6 6**

Welding demonstration given by the instructor and practice by the students. Safe correct methods of assembling and operating welding equipment are emphasized. Practice is given in joining and surfacing of ferrous metal by brazing, braze welding, fusion welding. Effects of expansion and contraction are covered so as to minimize warpage of auto body components. Oxyacetylene flame cutting is practiced as applicable to auto body and chassis repair work. Prerequisite: None.

**WLD 1131 Applied Inert Gas Welding 2 0 3 3**

Introduction and practical operation of the Inert Gas Welding processes. A study of principles of operation of shielding gases, filler metals, M.I.G. guns, T.I.G. torches. T.I.G. spot guns will be covered. Special attention given to the joining of thin metals, ferrous and non-ferrous. Safety procedures emphasized throughout the course. Prerequisite: None.





## AUTOMOTIVE MECHANICS V-003

The Automotive Mechanics curriculum is designed to take the student without any automotive experience and teach him the many skills used in servicing and repairing automobiles. He is taught, in each phase of the auto program, the construction, purpose and detail operation of each component so that he will have a better understanding of how to service and repair these components. He is also taught the operation of equipment that he will use in the service field. By using automobiles and proper equipment, the student deals with the actual problems he will encounter when servicing automobiles for the public.

Total credit hours: 70

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
ME	1101	Internal Combustion Engines	4	0	15	9
ME	1103	Automobile Fuel Systems	1	0	3	2
BUS	1103	Small Business Operations	3	0	0	3
MAT	1101	Fundamentals of Mathematics	<u>5</u>	<u>0</u>	<u>0</u>	<u>5</u>
			13	0	18	19
<b>SECOND QUARTER</b>						
UT	1123	Automotive Chassis and Suspension Systems	4	0	15	9
WLD	1101	Basic Gas and Arc Welding	1	0	3	2
ENG	1101	Communications I	3	0	0	3
PHY	1101	Applied Science I	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
			11	2	18	18
<b>THIRD QUARTER</b>						
ME	1102	Automotive Electrical Systems	4	0	15	9
HR	1101	Automotive Air Conditioning	2	0	3	3
ENG	1112	Communications II	3	0	0	3
MEC	1112	Machine Shop Processes	<u>1</u>	<u>0</u>	<u>3</u>	<u>2</u>
			10	0	21	17
<b>FOURTH QUARTER</b>						
UT	1124	Automotive Power Trains	3	0	9	6
UT	1125	Automotive Servicing	3	0	9	6
SY	1101	Human Relations	3	0	0	3
FT	1101	Schematics and Diagrams	<u>0</u>	<u>0</u>	<u>3</u>	<u>1</u>
			9	0	21	16

- Class  
- Lab  
- Practicum  
QH - Quarter Hours Credit

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**AHR 1101 Automotive Air Conditioning** 2 0 3 3-  
 General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of the operation, and control; proper handling of refrigerants in charging the system. Prerequisite: None.

**AUT 1123 Automotive Chassis and Suspension Systems** 4 0 15 9  
 Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension and steering systems. Units to be studied: shock absorbers, springs, steering systems, steering linkage and front end and its alignment. Prerequisite: None.

**AUT 1124 Automotive Power Trains** 3 0 9 6  
 Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair. Prerequisite: None.

**AUT 1125 Automotive Servicing** 3 0 9 6  
 Emphasis on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Trouble-shooting of automobile systems, providing a full range of experience in testing, adjusting, repairing and replacing. Prerequisite: None.

**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operations, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1101 Schematics and Diagrams** 0 0 3 1  
 Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

**ENG 1101 Communications I** 3 0 0 3  
 A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0 3  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1101 Fundamentals of Mathematics** 5 0 0 5  
 Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**MEC 1112 Machine Shop Processes** 1 0 3  
 To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operation, hand grinding of drill bits and lathe tools; set-up work applied to the trade. Prerequisite: None.

**PHY 1101 Applied Science I** 3 2 0  
 An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PME 1101 Internal Combustion Engines** 4 0 15  
 Development of a thorough knowledge and ability in using, maintaining, and storing various hand tools and measuring devices needed in engine repair work. Study of construction and operation of components of internal combustion engines. Testing engine performance; servicing and maintenance of pistons, valves, cams and camshafts; fuel and exhaust systems, cooling systems; proper lubrication, and methods of testing, diagnosing and repairing. Prerequisite: None.

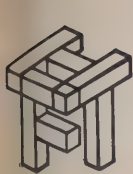
**PME 1102 Automotive Electrical Systems** 4 0 15  
 A thorough study of the electrical system of the automobile. Battery, cranking mechanism, generator, ignition, accessories and wiring; special tools, and testing equipment for the electrical system. Prerequisite: None.

**PME 1103 Automotive Fuel Systems** 1 0 3  
 A study of the characteristics of fuels, types of fuel systems, fuel pumps, carburetors, fuel injectors, special tools and testing equipment for the fuel system. Prerequisite: None.

**PSY 1101 Human Relations** 3 0 0  
 Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

**WLD 1101 Basic Gas and Arc Welding** 1 0 3  
 Welding demonstrations given by the Instructor and practice by the students. Safe, proper methods are demonstrated in the set up and operation of welding equipment. Practice is given in joining metals by torch welding, brazing, silver soldering and soldering, and shielded metal arc welding. Flame cutting methods are taught as they apply to mechanical repair work. Prerequisite: None.





## BUILDING TRADES DRAFTING V-015

This program prepares individuals to do drafting for the building industry. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. Emphasis is on gaining experience with actual problems rather than hypothetical ones. The building trades draftsman performs the general duties of a draftsman and specializes in organizing and making detail and working drawings of structures and mechanical equipment from preliminary sketches of the designer. He uses knowledge of various machines, engineering practices, building materials, and other physical sciences to complete the drawings.

Total credit hours: 74

### Curriculum By Quarters

Course Title	Hours Per Week			
	C	L	P	QH
<b>FIRST QUARTER</b>				
DFT 1121 Drafting I	4	0	12	8
MAT 1102 Algebra	5	0	0	5
PHY 1101 Applied Science I	3	2	0	4
DFT 1144 Building Materials and Methods	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	15	2	12	20
<b>SECOND QUARTER</b>				
DFT 1122 Drafting II	4	0	12	8
DFT 1125 Descriptive Geometry	2	0	3	3
ENG 1101 Communications I	3	0	0	3
MAT 1103 Geometry	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	12	0	15	17
<b>THIRD QUARTER</b>				
DFT 1141 Drafting III	4	0	15	9
DFT 1143 Building Mechanical Equipment	3	0	0	3
MAT 1104 Trigonometry	3	0	0	3
PHY 1116 Solar Energy Conversion Systems	<u>3</u>	<u>2</u>	<u>0</u>	<u>4</u>
	13	2	15	19
<b>FOURTH QUARTER</b>				
DFT 1142 Drafting IV	4	0	15	9
DFT 1150 Site Planning	2	0	3	3
ENG 1112 Communications II	3	0	0	3
BUS 1103 Small Business Operations	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>
	12	0	18	18

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 1103 Small Business Operations 3 0 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1121 Drafting I 4 0 12 8**

An introduction to drafting and the study of drafting practices. Instruction in the selection, use and care of instruments, singlestroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Emphasis on orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxiliary views. Study of dimensioning and note practices with reference to the American Standards Association practices. Methods of reproducing drawings included at the appropriate time. Prerequisite: None.

**DFT 1122 Drafting II 4 0 12 8**

Study of simple and successive revolutions and their application to practical problems. Study of section and conventions and drawing of both detail and assembly sections. Study of intersections and developments by relating the drawing to the sheet metal trades. Models of the assigned drawings to be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn.

Study of methods of drawing and projecting axonometric, oblique, and perspective drawings with emphasis on the practical applications of pictorial drawings. Introduction of various methods of shading and performance of dimensioning and sectioning of oblique and axonometric pictorials. Prerequisite: DFT 1121.

**DFT 1125 Descriptive Geometry 2 0 3 3**

Graphical analysis of space problems. Problems to deal with practical design elements involving points, lines, planes, connectors, and a combination of these. Includes problems dealing with solid geometry theorems. Analytical as well as graphical solution wherever applicable. Prerequisite: DFT 1121.

**DFT 1141 Drafting III 4 0 15 9**

An introduction to architectural drafting. Further development of techniques in lettering, dimensioning, freehand sketching and instrument drawings. Drawings of construction details, using appropriate material symbols and conventions. Working drawings including plans, elevations, sections, scale details and full-size details prepared from preliminary sketches. Prerequisite: DFT 1122.

**DFT 1142 Drafting IV 4 0 15 9**

Individual and group participation in the preparation of complete working drawings for a complex architectural structure. Study of drafting room organization and relationships of personnel within the architectural office. Prerequisites: DFT 1141, DFT 1143, DFT 1144.

**DFT 1143 Building Mechanical Equipment 3 0 0 3**

General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers. Prerequisite: DFT 1122.

**DFT 1144 Building Materials and Methods 3 0 0**

Study of materials used in the construction of architectural structures. Their economic values and limitations affected by locality, budget and codes. Field trips to construction sites and study of manufacturer's specifications for materials. Standard sizes of structural materials and modular construction techniques. Prerequisite: None.

**DFT 1150 Site Planning 2 0 3**

Introduction to factors influencing placement of buildings on sites. Specific analysis sites in terms of solar, topographic, use and wind characteristics. Includes field work surveying.

**ENG 1101 Communications I 3 0 0**

A course in communicative skills stressing reading, writing, speaking, and listening. This course includes library research, planning and delivering effective oral presentation participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II 3 0 0**

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and record forms and reports. Prerequisite: None.

**MAT 1102 Algebra 5 0 0**

Basic concepts and operations of algebra: historical background of our base — number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping factoring, ratio and proportions, variation; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing, exponents, logarithmic tables and interpolation. Prerequisite: None.

**MAT 1103 Geometry 3 0 0**

Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometry construction of lines, angles and plane figures. Areas of plane figures, volume of solids. Geometric principles applied to shop operation. Prerequisite: None.

**MAT 1104 Trigonometry 3 0 0**

Trigonometric ratios, solving problems with right triangles, using tables and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics applied to practical problems. Prerequisite: MAT 1102.

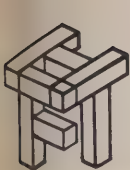
**PHY 1101 Applied Science I 3 2 0**

An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solid liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PHY 1116 Solar Energy Conversion Systems 3 2 0**

This course will include an introduction to the operation and evaluation of various energy conversion systems. The primary emphasis will be on the operation of passive and active solar systems. The student will learn how to select the components for complete solar space heating and/or domestic hot water heating system. Prerequisite: MAT 1102 or Equivalent.





## CARPENTRY V-007

Carpentry is one of the basic trades in the construction industry. Using hand and power tools, carpenters construct, erect, install and repair structures of wood, plywood, wallboard, and other materials. Students are taught to read blueprints of actual house plans, to work on foundations and footings, and to do interior framing, exterior trim, and roofing. Examples of specialization are layout carpenter, framing carpenter, concrete form carpenter, scaffolding carpenter, acoustical and insulating carpenter, and finish carpenter. For every hour in the classroom, the student spends about three hours developing shop skills and working on off campus projects.

Total credit hours: 65

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
CAR	1101	Framing, Sheathing and Insulating I	2	0	18	8
MAT	1113	Carpenter's Mathematics and Estimating	5	0	0	5
WRT	1110	Blueprint Reading I	0	0	3	1
ENG	1101	Communications I	3	0	0	3
			10	0	21	17
<b>SECOND QUARTER</b>						
CAR	1102	Framing, Sheathing and Insulation II	3	0	18	9
MAT	1114	Carpenter's Mathematics and Estimating	3	0	0	3
WRT	1111	Blueprint Reading II	0	0	3	1
SY	1101	Human Relations	3	0	0	3
			9	0	21	16
<b>THIRD QUARTER</b>						
AR	1103	Interior and Exterior Trim	3	0	21	10
AR	1114	Building Codes	3	0	0	3
US	1103	Small Business Operations	3	0	0	3
			9	0	21	16
<b>FOURTH QUARTER</b>						
AR	1105	Finish Work	6	0	21	13
ENG	1112	Communications II	3	0	0	3
			9	0	21	16

-Class  
-Lab  
-Practicum  
+ - Quarter Hours Credit

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**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**CAR 1101 Framing, Sheathing and Insulation I** 2 0 18 8  
 Instruction in the principles and practices of frame construction beginning with the foundation sills and including: floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Layout and construction methods of common types of roofs using standard rafter construction, truss construction and post and beam construction. Application and selection of sheathing and roofing. Consideration given to the coordination of carpentry work with installation of the mechanical equipment such as: electrical, air conditioning, heating, and plumbing. Prerequisite: None.

**CAR 1102 Framing, Sheathing and Insulation II** 3 0 18 9  
 A continuation of CAR 1101. Prerequisite: None.

**CAR 1103 Interior and Exterior Trim** 3 0 21 10  
 Cornice work, siding installation of windows and doors emphasized. Prerequisite: None.

**CAR 1105 Finish Work** 6 0 21 13  
 Exterior and interior trim and finish carpentry to complete the general carpentry program. Materials and methods used in finishing carpentry such as: exterior cornice, door and window trim; interior flooring, door and window facing, moldings, and cornice construction; installation of hardware, construction and installation of built-in equipment and cabinets. Millwork as performed by the general carpenter for building construction. Prerequisite: None.

**CAR 1114 Building Codes** 3 0 0 3  
 Study of applicable sections of city, state, and national codes. Material correlated with all other carpentry courses. Prerequisite: None.

**DFT 1110 Blueprint Reading I** 0 0 3 1  
 Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None.

**DFT 1111 Blueprint Reading II** 0 0 3  
 Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, floor plans, elevations, walls, doors and windows, and roofs of buildings. Development of proficiency in making three view and pictorial sketches. Estimating from blueprints. Prerequisite: None.

**ENG 1101 Communications I** 3 0 0  
 A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentation participation in group discussions, and practice in developing listening skills. Prerequisite: None.

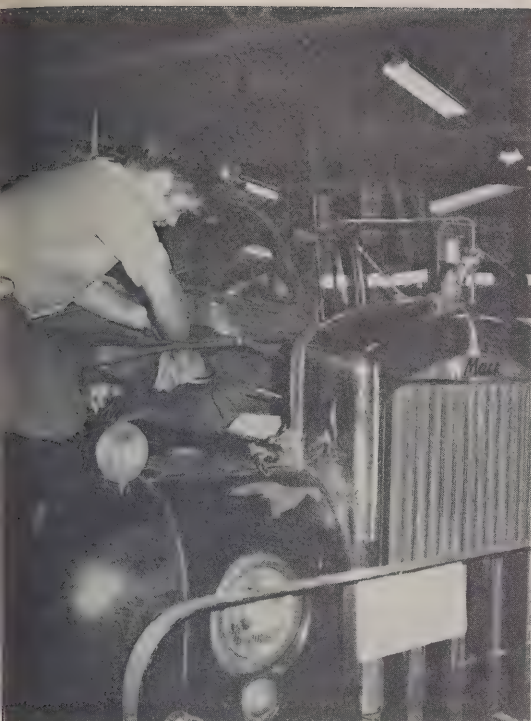
**ENG 1112 Communications II** 3 0 0  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1113 Carpenter's Mathematics and Estimating** 5 0 0  
 Practical problems which the carpenter must frequently solve. Emphasis upon weaknesses in the basic mathematical operations with instruction and practice of needed operation. Problems involving common fractions, decimals, power and root percentages, and ratio and proportions.

**MAT 1114 Carpenter's Mathematics and Estimating** 3 0 0  
 A continuation of MAT 1113 including problems dealing with plane and solid geometric figures and the measurement of surfaces and volumes. An introduction to algebra used in the trade. Basic estimating practices for building materials. Prerequisite: MAT 1113 equivalent.

**PSY 1101 Human Relations** 3 0 0  
 Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and work situation in relation to society, group membership, and relationships within work situation. Prerequisite: None.





## DIESEL TRUCK MAINTENANCE AND REPAIR V-013

The diesel mechanics keep bulldozers, tractors, trucks and other diesel-powered equipment in top running order for farms and industry. Most diesel mechanics specialize in one of these kinds of diesel equipment.

The program at Forsyth Technical Institute trains students to enter the maintenance division of the trucking industry, and the scope and nature of shop work offered match closely that of the trucking industry itself. The repair and maintenance of late-model trucks and component parts obtained from industry assure the student of learning his craft on equipment similar to what he will encounter upon graduation, and his working with hand tools and reconditioning and testing equipment currently used in the trucking industry further eases his transition from instruction to industry.

Total credit hours: 68

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
DSL	1101	Diesel Engines	4	0	15	9
WLD	1101	Basic Gas and Arc Welding	1	0	3	2
PHY	1101	Applied Science I	3	2	0	4
ENG	1101	Communications I	3	0	0	3
			11	2	18	18
<b>SECOND QUARTER</b>						
DSL	1102	Diesel Electrical Systems	4	0	15	9
CHR	1101	Automotive Air Conditioning	2	0	3	3
MAT	1101	Fundamentals of Mathematics	5	0	0	5
DFT	1101	Schematics and Diagrams	0	0	3	1
			11	0	21	18
<b>THIRD QUARTER</b>						
DSL	1103	Diesel Fuel Injection	2	0	6	4
DSL	1104	Power Trains, Chassis & Suspension Systems	4	0	15	9
ENG	1112	Communications II	3	0	0	3
			9	0	21	16
<b>FOURTH QUARTER</b>						
DSL	1105	Diesel Servicing	5	0	15	10
MEC	1120	Machine Processes	1	0	6	3
BUS	1103	Small Business Operations	3	0	0	3
			9	0	21	16

• Class  
• Lab  
• Practicum  
QH - Quarter Hours Credit

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**AHR 1101 Automotive Air Conditioning** 2 0 3 3  
 General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of the operation, and control; proper handling of refrigerants in charging the system. Prerequisite: None.

**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1101 Schematics and Diagrams** 0 0 3 1  
 Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes. Prerequisite: None.

**DSL 1101 Diesel Engines** 4 0 15 9  
 Development of a general understanding of the basic principles involved in the construction and operation of diesel engines; also, thermodynamic concept of cycles related to the diesel engines. An elementary study of performance characteristics of diesel engines and basic design in fuel systems. Work includes such overhaul jobs as grinding valves, gaging cylinder wear, removing and replacing cylinder liners, boring cylinders, replacing and adjusting bearings, gaging and installing piston rings. Prerequisite: None.

**DSL 1102 Diesel Electrical System** 4 0 15 9  
 A course designed to familiarize the student with the constructional and operational features of the electrical units which are used on preheating, starting and generating systems of diesel engines. Student activities in reconditioning techniques of generators, starters, and alternators. Use of test equipment for measurement, adjustment and trouble shooting included. Prerequisite: None.

**DSL 1103 Diesel Fuel Injection** 2 0 6 4  
 Theory related to a study of the variations in design and the principles of operation of fuel injection systems used on the automotive diesel engine. Practice work designed to familiarize the student with the operation, maintenance and testing of the units which comprise the fuel injection systems of diesel engines. Teaches student to maintain, repair, and test such units as fuel pumps, transfer pumps, spray nozzles and unit injectors. Prerequisite: None.

**DSL 1104 Power Trains, Chassis & Suspension Systems** 4 0 15 9  
 Instruction given in the construction features and operating principles of truck chassis, suspension, steering and brake systems. Teaches student to operate equipment to correct and adjust abnormalities in suspension and steering. Familiarization with the variations in design and functioning of brake systems as used by heavy trucks. Study of the construction and operation of such component parts as clutches, transmissions, propeller shafts and rear axles. Prerequisite: None.

**DSL 1105 Diesel Servicing** 5 0 15  
 A course intended for those who desire to become proficient in the field of diesel diagnosis and repair. Vehicles first given a complete checkout to determine the trouble and the trouble corrected on the basis of the diagnostic report. Training provided on major mechanical and electrical units. Preventive maintenance and servicing techniques taught as recommended by manufacturers. Prerequisite: None.

**ENG 1101 Communications I** 3 0 0  
 A course in communicative skills stressing reading, writing, speaking, and listening. This course includes library research, planning and delivering effective oral presentation participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

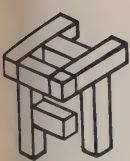
**MAT 1101 Fundamentals of Mathematics** 5 0 0  
 Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**MEC 1120 Machine Processes** 1 0 6  
 Study of practices used in metalworking shops: introduction to how materials can be utilized. Demonstration of the metalworking lathes, drills, milling machines, shapers, and a study of the capabilities of these machines. Prerequisite: None.

**PHY 1101 Applied Science I** 3 2 0  
 An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**WLD 1101 Basic Gas and Arc Welding** 1 0 3  
 Welding demonstrations given by the instructor and practice by the students. Safe and proper methods are demonstrated in the set up and operation of welding equipment. Practice is given in joining metals by torch welding, brazing, silver soldering and gas soldering, and shielded metal arc welding. Flame cutting methods are taught as they apply to mechanical repair work. Prerequisite: None.





## ELECTRICAL INSTALLATION V-018

The rapid development and increased use of new products, together with the expanding economy, are demanding more and better qualified workers to install and maintain electrical equipment. Through classroom, shop, laboratory instruction and experience, a student learns the basics of motor and motor control systems, industrial electronic control systems, business procedures, and communications skills; and he will understand the National Electrical Code as it relates to wiring, electrical circuits, and the measurements of voltage, current, power and power factor of single and polyphase alternating circuits. Persons entering this program should have a strong mathematics background, including at least one year of algebra.

Total credit hours: 71

### Curriculum By Quarters

Course Title				Hours Per Week			
				C	L	P	QH
<b>FIRST QUARTER</b>							
ELC	1121	Electrical Installation Fundamentals		5	0	15	10
PHY	1103	Fundamentals of Electricity		3	2	0	4
MAT	1101	Fundamentals of Mathematics		5	0	0	5
				13	2	15	19
<b>SECOND QUARTER</b>							
ELC	1122	Residential Wiring I		4	0	15	9
DFT	1110	Blueprint Reading: Building Trades		0	0	3	1
PHY	1102	Applied Science II		3	2	0	4
ENG	1101	Communications I		3	0	0	3
				10	2	18	17
<b>THIRD QUARTER</b>							
ELC	1123	Residential Wiring II		5	0	15	10
PSY	1101	Human Relations		3	0	0	3
DFT	1113	Blueprint Reading: Electrical		0	0	3	1
ENG	1112	Communications II		3	0	0	3
				11	0	18	17
<b>FOURTH QUARTER</b>							
ELC	1125	Commercial and Industrial Wiring		6	0	15	11
BUS	1103	Small Business Operations		3	0	0	3
ELN	1118	Industrial Electronics		3	0	3	4
				12	0	18	18

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

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**BUS 1103 Small Business Operations 3 0 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1110 Blueprint Reading 0 0 3 1**

Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None.

**DFT 1113 Blueprint Reading: Electrical 0 0 3 1**

Interpretation of schematics diagrams and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial installations using appropriate symbols and notes according to the applicable codes. Prerequisite: None.

**ELC 1121 Electrical Installation Fundamentals 5 0 15 10**

This is an introduction to the field of electrical installation. Instruction will include a course overview, use of hand tools, wiring layouts, practice wiring, safety and the National Electrical Code. Prerequisite: None.

**ELC 1122 Residential Wiring I 4 0 15 9**

The techniques learned in ELC 1121 will be applied to actual wiring. Other subjects covered will include material take off, power tools and electrical calculations. The study of the electrical code will be continued. Prerequisite: ELC 1121.

**ELC 1123 Residential Wiring II 5 0 15 10**

This is a continuation of ELC 1122. Practice wiring will be continued. Other subjects covered will include interpretation of specifications, electrical contracts, switch gear, and electrical design. The study of the electrical code will be continued. Prerequisite: ELC 1122.

**ELC 1125 Commercial and Industrial Wiring 6 0 15 11**

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisite: ELC 1123.

**ELN 1118 Industrial Electronics 3 0 3 4**

Basic theory, operating characteristics, and application of vacuum tubes, such as: diodes, triodes, tetrodes, pentodes, and gaseous control tubes. An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications. Prerequisite: None.

**ENG 1101 Communications I 3 0 0 0**

A course in communicative skills stressing reading, writing, speaking, and listening. This course includes library research, planning and delivering effective oral presentation participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II 3 0 0 0**

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1101 Fundamentals of Mathematics 5 0 0 0**

Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**PHY 1102 Applied Science II 3 2 0 0**

A study of the concepts of force, motion, work, energy, power and heat. Practical applications are realized through the study of friction and simple machines, and the relationship between thermal and mechanical energy.

**PHY 1103 Fundamentals of Electricity 3 2 0 0**

Elementary principles of electricity including the structure of matter and electrical theory, basic electrical units, the relationship of current, voltage, resistance and power in series, parallel, and combination circuits.

**PSY 1101 Human Relations 3 0 0 0**

Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and the work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.





## ELECTRONIC SERVICING V-042

Lest anyone overlook the importance of television servicing, let him answer only two questions: How many people have and use television receivers? And how many people who have and use television receivers can repair one when it needs repairing? In the difference between these two numbers lies the opportunity in entering television servicing. The television repair program includes instruction in the basic knowledge and skills required to install, maintain and service television receivers. Laboratory work in circuitry, schematic diagrams and troubleshooting supplements classroom instruction and demonstration. During the final quarter, intensive work in servicing color television sets reflects their growing popularity. This is an approved C.E.T. course.

Total credit hours: 82

### Curriculum By Quarters

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
EC 1120	Direct and Alternating Current	8	8	6	14
AT 1115	Elements of Mathematics	5	0	0	5
WG 1101	Communications I	3	0	0	3
		16	8	6	22
<b>SECOND QUARTER</b>					
EN 1121	Vacuum Tubes and Circuits	4	4	3	7
EN 1122	Transistor Theory and Circuits	6	4	6	10
WG 1112	Communications II	3	0	0	3
		13	8	9	20
<b>THIRD QUARTER</b>					
EN 1123	Black and White Television Servicing	10	6	9	16
HY 1104	Applied Science: Light and Sound	3	2	0	4
		13	8	9	20
<b>FOURTH QUARTER</b>					
EN 1124	Color Television Servicing	10	8	9	17
JS 1103	Small Business Operations	3	0	0	3
		13	8	9	20

· Class  
· Lab  
· Practicum  
QH - Quarter Hours Credit

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**BUS 1103 Small Business Operation** 3 0 0 3  
An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**ELC 1120 Direct and Alternating Current** 8 8 6 14  
A study of the structure of matter and the electron theory, the relationship between voltage, current and resistance in series, parallel and series-parallel circuits. Analysis of direct current circuits by Ohm's law and Kirchhoff's law; sources of direct current potentials. Fundamental concepts of alternating current flow; a study of reactance, impedance, phase angle, power and resonance and alternating current circuit analysis. Prerequisite: None.

**ELN 1121 Vacuum Tubes and Circuits** 4 4 3 7  
A course in vacuum tube theory. Areas covered in lecture and laboratory: construction and operation of diodes, triodes, tetrodes, pentodes, and other tube types. Analysis of basic circuits such as amplifiers, power supplies, and oscillators. Study of the superheterodyne receiver with an introduction to basic vacuum tube troubleshooting procedures. Prerequisite: ELC 1120.

**ELN 1122 Transistor Theory and Circuits** 6 4 6 10  
A course in semiconductor theory. Devices to be studied: the diode, transistor, FET, Zenor diode, SCR, UJT, and integrated circuits. Circuits studied in lecture and laboratory sessions: power supplies, tuned amplifiers, audio amplifiers, oscillators and detectors. An introduction to systems troubleshooting included. Prerequisite: ELC 1120.

**ELN 1123 Black and White Television Servicing** 10 6 9 16  
A study of black and white television receivers. Detailed study of all circuits of the TV receivers in classroom and laboratory sessions. Supervised servicing practice to develop skills in using test equipment to repair and maintain television receivers. Prerequisites: ELN 1121, ELN 1122.

**ELN 1124 Color Television Servicing** 10 8 9 17  
Theory of operation of the television circuits peculiar to color receivers. Includes composite color telecasting signals, color receiver detectors, kinescopes, convergence, and matrix networks. Theory of operations and practical test bench techniques including troubleshooting, alignment, and convergence. Prerequisite: ELN 1123.

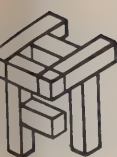
**ENG1101 Communications I** 3 0 0 3  
A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0 3  
A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1115 Elements of Mathematics** 5 0 0 5  
A course designed for the radio-TV program to include: review of arithmetic, powers of ten, elementary algebra, trigonometry, vectors, and logarithms. Prerequisite: None.

**PHY 1104 Applied Science IV** 3 2 0 4  
A study of wave motion and sound and light. Practical applications are stressed through the study of acoustics, musical rounds, color mixing, optical devices, illumination and the laser.





Curriculum By Quarters

Course Title				Hours Per Week			
				C	L	P	QH
<b>FIRST QUARTER</b>							
PRN	1131	Introduction to Printing		6	0	12	10
MAT	1150	Printer's Mathematics		5	0	0	5
PRN	1101	Printer's English		3	0	0	3
BUS	1122	Typing I		2	0	3	3
				16	0	15	21
<b>SECOND QUARTER</b>							
PRN	1132	Offset Printing I		4	0	12	8
PHY	1114	Science for Printers		3	2	0	4
PRN	1134	Composition I		3	0	6	5
				10	2	18	17
<b>THIRD QUARTER</b>							
PRN	1133	Offset Printing II		6	0	15	11
PRN	1135	Composition II		3	0	3	4
ENG	1101	Communications I		3	0	0	3
				12	0	18	18
<b>FOURTH QUARTER</b>							
PRN	1137	Printing Project		0	0	21	7
BUS	1103	Small Business Operations		3	0	0	3
ENG	1112	Communications II		3	0	0	3
PRN	1136	Estimating		5	0	0	5
				11	0	21	18

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

## GRAPHIC ARTS/PRINTING V-022

Printing is the second largest industry in the United States in terms of the number of existing establishments.

Printing is carried on everywhere; all over the world. Wherever there is civilization, there is printing. The printer can be employed on a weekly newspaper in a small town, or he can work in one of the huge plants in larger cities.

Working conditions are, as a rule, good. Work, especially on the newspapers, is steady and there are no seasonal layoffs as there are in some other industries.

This curriculum is designed to give students experience in a cluster of activities representing basic areas of the graphic arts industry. The range of experiences is sufficient to enable students to understand a variety of graphic arts processes and to develop skills enabling them to perform these processes with a high degree of efficiency. The print shop is large and well lighted, and the equipment is the most modern which can be obtained.

Total credit hours: 74

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 1103 Small Business Operations 3 0 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**BUS 1122 Typing I 2 0 3 3**

Introduction to the touch typewriter system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. Prerequisite: None.

**ENG 1101 Communications I 3 0 0 3**

A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II 3 0 0 3**

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1150 Printer's Mathematics 5 0 0 5**

This course deals with the printer's point system as it applies to type spaces, furniture, and other spacing materials as well as problems in spacing outlines and centering heads. Instruction and practice will be given in reading a micrometer. Problems in cutting paper economically and in figuring the amount, and problems dealing with measuring the thickness of paper and offset plates will be used. Prerequisite: None.

**PHY 1114 Science for Printers 3 2 0 4**

This course is designed to acquaint the student with some of the facts and principles concerning the properties and structure of matter. Major topics considered will be the general and specific properties of matter, atomic theory, physical and chemical changes, theories of light, photometry, mirrors and lenses, reflection, refraction, and color. Prerequisite: MAT 1150.

**PRN 1101 Printer's English 3 0 0 3**

This is not a course for beginners in English, but is intended to provide a review of the essentials of English as they relate to the art of printing. The course deals with compounding words, modern punctuation, capitalization, syllabication, contractions, homonyms, errors in English words, sentence structure, and the marks in proofreading. Prerequisite: None.

**PRN 1131 Introduction to Printing 6 0 12 1**

This course is an introduction to the printing trade. Instruction will include student orientation, a historical outline of graphic arts, familiarization of terms, equipment and tools used in printing, and demonstrations of the equipment used in the Graphic Arts program. The student will be required to produce a printing project. Safe practices and safety rules are stressed. Prerequisite: None.

**PRN 1132 Offset Printing I 4 0 12 1**

This course is an introduction to Offset Printing. The Offset Press, Multilith 1250 and 1250W, ATF Chief and Davidson Dualith will be covered. The camera and stripping and platemaking will also be covered. The student will be required to operate each of the pieces of equipment. Prerequisites: PRN 1131, MAT 1150, PRN 1101, and BUS 1122.

**PRN 1133 Offset Printing II 6 0 15 1**

A continuation of PRN 1132, this course will place emphasis on use and maintenance of the larger press. Students will be introduced to the production of two, three, and four color printing. This course is also an advanced study of the process camera and related darkroom equipment. Duotones will be emphasized. Prerequisites: PRN 1132, PRN 1134, PHY 1114.

**PRN 1134 Composition I 3 0 6 1**

The student will be instructed in the methods of copy preparation and the use of equipment in that phase of graphic arts. After the student has learned how to prepare copy, he will be required to produce one or more jobs. Prerequisites: PRN 1131, MAT 1150, PRN 1101, and BUS 1122.

**PRN 1135 Composition II 3 0 3 4**

This course is a continuation of Composition I. The major part of this course will be devoted to cold type composition by the machine method. Machines covered will include the typewriter, varityper, and headliner. Instruction will include photographs and color. Prerequisites: PRN 1132, PRN 1134, PHY 1114.

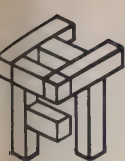
**PRN 1136 Estimating 5 0 0 5**

This course covers fundamentals of estimating costs of printing. Included in the instruction is the role of the estimator, basic cost areas, paper and layouts, preparatory composition, the press, finishing, estimate forms, estimating practice, and use of the Franklin Catalog. Prerequisites: PRN 1133, PRN 1135.

**PRN 1137 Printing Project 0 0 21 7**

The printing project will be determined after a conference between the instructor and student. The project will be in an area in which the student has had the fundamentals. Prerequisites: PRN 1133, PRN 1135.





## MACHINIST V-032

If there is any one worker indispensable to manufacturing, it is probably the machinist; for it is he who forms into steel the idea on the engineer's blueprint. The grinding, milling, and turning of these complex parts require rare skill, and most employers want to hire only the well trained. The machinist program is both broad and detailed—broad enough to permit the graduate to fill a number of jobs in a company's machine shop, detailed enough to ensure that he understands the work fully. The demand for machinists is much greater than the supply. For the person who likes to work with his hands, where precision rules, who delights in fashioning from formless metal an engine piston, a missile part, or perhaps a surgical tool, the machinist field offers satisfaction and challenge.

Total credit hours: 74

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
MEC	1101	Machine Shop Theory and Practice I	3	0	12	7
MAT	1101	Fundamentals of Mathematics	5	0	0	5
DFT	1104	Blueprint Reading: Mechanical I	0	0	3	1
WLD	1101	Basic Gas and Arc Welding	1	0	3	2
BUS	1103	Small Business Operations	3	0	0	3
			12	0	18	18
<b>SECOND QUARTER</b>						
MEC	1102	Machine Shop Theory and Practice II	3	0	12	7
MAT	1102	Algebra	5	0	0	5
DFT	1105	Blueprint Reading: Mechanical II	0	0	3	1
ENG	1101	Communications I	3	0	0	3
MEC	1115	Treatment of Ferrous Metals	2	0	3	3
			13	0	18	19
<b>THIRD QUARTER</b>						
MEC	1103	Machine Shop Theory and Practice III	4	0	12	7
DFT	1106	Blueprint Reading: Mechanical III	0	0	3	1
MAT	1103	Geometry	3	0	0	3
MEC	1116	Treatment of Non-Ferrous Metals	2	0	3	3
PHY	1101	Applied Science I	3	2	0	4
			12	2	18	18
<b>FOURTH QUARTER</b>						
MEC	1104	Machine Shop Theory and Practice IV	4	0	15	9
MAT	1104	Trigonometry	3	0	0	3
ENG	1112	Communications II	3	0	0	3
PHY	1102	Applied Science II	3	2	0	4
			13	2	15	19

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

**Forsyth Technical Institute**  
**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1104 Blueprint Reading: Mechanical I** 0 0 3 1  
 Interpretation and reading of blueprints. Information on the basic principles of the blueprint, lines, views, dimensioning procedures and notes. Prerequisite: None.

**DFT 1105 Blueprint Reading: Mechanical II** 0 0 3 1  
 Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operation; introduction to drafting room procedures; sketching as a means of passing on ideas, information and processes. Prerequisite: None.

**DFT 1106 Blueprint Reading: Mechanical III** 0 0 3 1  
 Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly. Prerequisite: None.

**ENG 1101 Communications I** 3 0 0 3  
 A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0 3  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1101 Fundamentals of Mathematics** 5 0 0 5  
 Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**MAT 1102 Algebra** 5 0 0 5  
 Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping factoring, ratio and proportions, variations, graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing, exponents, logarithms, tables and interpolation. Prerequisite: None.

**MAT 1103 Geometry** 3 0 0 3  
 Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometry construction of lines, angles and plane figures. Areas of plane figures, volume of solids. Geometric principles applied to shop operations. Prerequisite: None.

**MAT 1104 Trigonometry** 3 0 0 3  
 Trigonometric ratios, solving problems with right triangles, using tables and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics applied to practical problems. Prerequisite: MAT 1102.

**MEC 1101 Machine Shop Theory and Practice I** 3 0 12  
 An introduction to the machinist trade and the potential it holds for craftsmen. Emphasis primarily with the identification, care and use of basic hand tools and precision measuring instruments. Elementary layout procedures and processes of lathe, drill press, grinding (off-hand) and milling machines introduced both in theory and practice. Prerequisite: None.

**MEC 1102 Machine Shop Theory and Practice II** 3 0 12  
 Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, milling machine shaper. Will be introduced to the basic operations of the cylindrical grinder and select projects encompassing all the operations, tools and procedures thus far used and those to be stressed through the course. Prerequisite: None.

**MEC 1103 Machine Shop Theory and Practice III** 4 0 12  
 Advanced work on the engine lathe, turning, boring and threading machines, grinding machine and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting and measuring of spur, helical, and worm gears and wheels. Use of precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises given on the turret lathe and on the tool and cutter grinder. Prerequisite: None.

**MEC 1104 Machine Shop Theory and Practice IV** 4 0 15  
 Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly and inspection. Additional processes on the turret lathe, tool and cutting grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Special procedures and operations, processes and equipment, observing safety procedures faithfully and establishing of good work habits and attitudes acceptable to the industry. Prerequisite: None.

**MEC 1115 Treatment of Ferrous Metals** 2 0 3  
 Investigates the properties of ferrous metals and tests to determine their use. Will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Topics for study: physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron. Prerequisite: None.

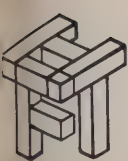
**MEC 1116 Treatment of Non-Ferrous Metals** 2 0 3  
 Continuation of the study of physical metallurgy. Study of the non-ferrous metal bearing metals (brass, bronze, lead) light metals (aluminum and magnesium) and copper and its alloys. Powder metallurgy, titanium, zirconium, indium and vanadium included in this course. Prerequisite: None.

**PHY 1101 Applied Science I** 3 2 0  
 An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PHY 1102 Applied Science II** 3 2 0  
 A study of the concepts of force, motion, work, energy, power and heat. Practical applications are realized through the study of friction and simple machines, and the relationship between thermal and mechanical energy.

**WLD 1101 Basic Gas and Arc Welding** 1 0 3  
 Welding demonstrations given by the instructor and practice by the students. Safe and proper methods are demonstrated in the set up and operation of welding equipment. Practice is given in joining metals by torch welding, brazing, silver soldering and soft soldering, and shielded metal arc welding. Flame cutting methods are taught as they apply to mechanical repair work. Prerequisite: None.





## PLUMBING V-037

One has only to look about him to observe the startling number of new structures going up, commercial, industrial, and domestic. Every such building has a plumbing system, and each system requires plumbers not only to install it but to keep it operating. This program trains the individual to enter this field with the theoretical knowledge he needs to understand new systems, as well as old, and the practical experience that enables him to become a journeyman in minimum time.

Total credit hours: 67

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
PLU	1131	Plumbing I	8	0	15	13
DFT	1110	Blueprint Reading I	0	0	3	1
MAT	1117	Plumber's Arithmetic	4	0	0	4
			12	0	18	18
<b>SECOND QUARTER</b>						
PLU	1132	Plumbing II	3	0	15	8
WLD	1101	Basic Gas and Arc Welding	1	0	3	2
ENG	1101	Communications I	3	0	0	3
PHY	1101	Applied Science I	3	2	0	4
			10	2	18	17
<b>THIRD QUARTER</b>						
PLU	1133	Plumbing III	5	0	18	11
DFT	1112	Drafting I—Plumbing	1	0	3	2
PSY	1101	Human Relations	3	0	0	3
			9	0	21	16
<b>FOURTH QUARTER</b>						
PLU	1134	Plumbing IV	3	0	21	10
ENG	1112	Communications II	3	0	0	3
BUS	1103	Small Business Operations	3	0	0	3
			9	0	21	16

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

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**2100 Silas Creek Pkwy.**  
**Winston-Salem, N.C. 27103**

**BUS 1103 Small Business Operations 3 0 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1110 Blueprint Reading 0 0 3 1**

Principles of interpreting blueprints and trade specifications common to the building trades. Development of proficiency in making three view and pictorial sketches. Prerequisite: None.

**DFT 1112 Drafting I: Plumbing 1 0 3 2**

Review of blueprint reading, instruction in the selection, use and care of basic drafting instruments. Single stroke freehand lettering. Orthographic projection consisting of instruments and freehand sketching. Study of dimensioning and note practices with reference to the American Standard Association practices. Includes methods of reproducing drawings; detail, assembly, layout and pictorial drawings; specifications, parts list and bill of materials. Drawings of piping includes: metal pipe, tubing, plastic pipe, pipe joints, tube joints, pipe fitting, valves, specification of fittings, pipe threads, specification of threads, scale layout (two line drawing) and diagrammatic (single line) drawings. (Diagrammatic methods include orthographic, developed and pictorial) standard symbols, dimensioning of a pipe drawing, and pipe hangers and supports. Students work to include various problems of piping layout to scale. (Note—school will furnish drafting equipment.) Prerequisite: None.

**ENG 1101 Communications I 3 0 0 3**

A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II 3 0 0 3**

A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1117 Plumber's Arithmetic 4 0 0 4**

Composed primarily of practical problems which the plumber must frequently solve. Emphasis upon instruction and practice in areas of deficiency in basic mathematics. Use of problems involving common fractions, decimals, and percentages. Prerequisite: None.

**PHY 1101 Applied Science I 3 2 0 4**

An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system; properties of solids, liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PLU 1131 Plumbing I 8 0 15**

This course is an introduction to the plumbing trade. It includes plumbing systems, and care of hand tools and selection of plumbing materials. The student will learn solder copper pipe, cement plastic pipe, and pour lead joints. Plumbing layouts and study of the North Carolina Plumbing code will also be introduced. Prerequisite: None.

**PLU 1132 Plumbing II 3 0 15**

This course is a continuation of PLU 1131. The student will practice "roughing-in" houses which includes measuring for and cutting holes in stud walls; figuring pipe slope in pipe; and locating stacks, stack vents, toilets and drains. The student will learn to determine size of and to install water pipe and waste pipe. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1131.

**PLU 1133 Plumbing III 5 0 18**

This course is a continuation of PLU 1132. General plumbing practice will be continued. However, in this quarter, the student will assist in the selection and installation of types of fixtures as well as the selection, installation and service of water heaters. The study of plumbing layouts and the North Carolina Plumbing Code will be continued. Prerequisite: PLU 1132.

**PLU 1134 Plumbing IV 3 0 21**

This course is a continuation of PLU 1133. The installation of plumbing will be continued. Additionally, the topics of plumbing repairs, trouble shooting and unclogging drains will be covered. The study of layouts and plumbing codes will be concluded. Prerequisite: PLU 1133.

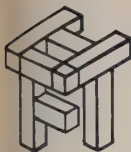
**PSY 1101 Human Relations 3 0 0**

Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

**WLD 1101 Basic Gas and Arc Welding 1 0 3**

Welding demonstrations given by the instructor and practice by the students. Safe and proper methods are demonstrated in the set up and operation of welding equipment. Practice is given in joining metals by torch welding, brazing, silver soldering and soldering, and shielded metal arc welding. Flame cutting methods are taught as they apply to mechanical repair work. Prerequisite: None.





## PRACTICAL NURSE EDUCATION V-038



Curriculum By Quarters

The one year course of study for practical nursing is offered to individuals who have completed high school and are interested in short term nursing preparation. The program prepares for giving nursing care in hospitals, homes, and long-term care facilities.

Graduates are eligible to write the state Board Test Pool Examination for Practical Nurses. Successful attainment leads to licensure as a Licensed Practical Nurse (L.P.N.) in North Carolina.

Total credit hours: 81

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
PNE 1101	Fundamentals of Practical Nursing	7	0	0	7
PNE 1102	Nutrition & Diet Therapy	3	0	0	3
PNE 1103	Anatomy and Physiology	4	0	0	4
PNE 1105	Drug Administration I	3	0	0	3
PNE 1201	Fundamentals Practicum Experience	0	0	6	2
		17	0	6	19
<b>SECOND QUARTER</b>					
PNE 1106	Medical-Surgical Nursing I	8	0	0	8
PNE 1111	Drug Administration II	4	0	0	4
PNE 1202	Medical Practicum (½ quarter)*	1	0	15	3
PNE 1203	Surgical Practicum (½ quarter)*	(1)	0	(15)	3
PSY 1101	Human Relations	3	0	0	3
		16	0	15	21
<b>THIRD QUARTER</b>					
PNE 1108	Nursing of Children	3	0	0	3
PNE 1110	Medical-Surgical Nursing II	8	0	0	8
PNE 1204	Pediatrics Practicum (½ quarter)*	1	0	15	3
PNE 1205	Medical-Surgical Practicum (½ quarter)*	(1)	0	(15)	3
ENG 1101	Communications I	3	0	0	3
		15	0	15	20
<b>FOURTH QUARTER</b>					
PNE 1107	Maternity Nursing	3	0	0	3
PNE 1113	Medical-Surgical Nursing III	6	0	0	6
PNE 1115	Personal & Vocational Relationships	3	0	0	3
PNE 1206	Maternity Practicum (½ quarter)*	1	0	15	3
PNE 1207	Rehabilitation Practicum (½ quarter)*	(1)	0	(15)	3
ENG 1112	Communications II	3	0	0	3
**NUR 3008	Cardiopulmonary Resuscitation (CPR)	0	0	0	0
		16	0	15	21

\*\*The CPR course may be taken any time during the first three quarters. However, current certification must be maintained for the duration of the program.

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

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**ENG 1101 Communications I** 3 0 0 3  
 A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0 3  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0  
 This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardio-pulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**PNE 1101 Fundamentals of Practical Nursing** 7 0 0 7  
 This course assists the student to assume the role of student practical nurse in the hospital setting. In the classroom the student learns the hand skills and the knowledge necessary for beginning care and relationships with patients. It is taught concurrently with PNE 1201. Prerequisite: None.

**PNE 1102 Nutrition and Diet Therapy** 3 0 0 3  
 Nutritional requirements and planning for all age groups is included in this course. It presents religious, cultural, social, and psychological factors that change dietary needs and is the study of therapeutic diets that affect disease conditions. Prerequisite: None.

**PNE 1103 Anatomy and Physiology** 4 0 0 4  
 Included in this course is the study of the general plan of the body and the nine systems. It is designed for understanding how the human body controls its functions, stands erect and moves, distributes food and oxygen, removes waste and provides for specie survival. Prerequisite: None.

**PNE 1105 Drug Administration I** 3 0 0 3  
 This classroom instruction teaches safe techniques for oral drug administration. Systems for measuring drugs are included with practice in solving drug problems of measurement and conversion. Prerequisite: None.

**PNE 1106 Medical-Surgical Nursing I** 8 0 0 8  
 This is a classroom course and includes an overview of the needs of the adult medical and surgical patient, including body responses to disease and pain, assisting patients during diagnostic tests, pre-operative and post-operative care. It is taught concurrently with PNE 1202 and 1203. Prerequisites: PNE 1101, 1102, 1103, and 1105.

**PNE 1107 Maternity Nursing** 3 0 0 3  
 This classroom course presents the nursing care of the normal obstetrical patient and newborn child. Emphasis is placed on provision of better and safer nursing care for the expectant mother and her baby. Prerequisite: PNE 1101, 1102, 1103, and 1105.

**PNE 1108 Nursing of Children** 3 0 0 3  
 The normal growth and development pattern of the newborn child, school-age child and adolescent is studied in this course. Methods of meeting the needs of the hospitalized child are included. The student is prepared to care for hospitalized children with common disorders. Prerequisites: PNE 1101, 1102, 1103, and 1105.

**PNE 1110 Medical-Surgical Nursing II** 8 0 0 8  
 This is the study of the nursing care of common disorders of adults in the respiratory, musculoskeletal, gastrointestinal, reproductive and urinary systems. Nursing the patient with cancer is also included. It is taught concurrently with PNE 1204 and PNE 1205. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, and PNE 1106.

**PNE 1111 Drug Administration II** 4 0 0 4  
 Factual material is given in this course on dosages and effects of drugs. There is experience with equipment and techniques used in preparing and giving injections. Insulin therapy, the storage, safety regulations, and preparation of narcotics are studied. The course is taught concurrently with PNE 1204 and PNE 1205. Prerequisites: PNE 1105, PNE 1202, and PNE 1203.

**PNE 1113 Medical-Surgical Nursing III** 6 0 0 6  
 This classroom course is a study of the nursing care for medical and surgical disorders of the eye, ear, and the skin. Nursing care of disorders in the circulatory, nervous, and endocrine systems is included. The course is taught concurrently with PNE 1206 and PNE 1207. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, PNE 1110, and PNE 1111.

**PNE 1115 Personal and Vocational Relationships** 3 0 0  
 In this course the student is assisted to assume the role of a graduate practical nurse. The content includes advanced nursing ethics, laws that guide nursing practice and review of the role of the practical nurse as student and graduate. Prerequisites: PNE 1105, PNE 1106, PNE 1110, PNE 1111, PNE 1113, PNE 1202, PNE 1203, PNE 1204, and PNE 1205.

**PNE 1201 Fundamentals Practicum Experience** 0 0 6  
 Students have the opportunity to perfect hand skills necessary to the care of adult patients in hospitals. The course includes use of concepts of safety and individuality with patients. Communication, charting and medical terminologies are an integral part of the study. The course is taught concurrently with PNE 1101. Prerequisite: None.

**PNE 1202 Medical Practicum (½ quarter)** 1 0 15  
 This course provides experience with adult patients in a hospital under supervision of clinical teacher. Patients with common medical disorders are assigned for student care. Emphasis is on hand skills, solving nursing care problems and oral drug administration. The course is taught concurrently with PNE 1106. Prerequisites: PNE 1101, PNE 1102, PNE 1103, and PNE 1105.

**PNE 1203 Surgical Practicum (½ quarter)** 1 0 15  
 This is a hospital course of experience with adult patients under supervision of a clinical teacher. Patients with surgical disorders are assigned for nursing care. Emphasis is on hand skills, solving nursing care problems and oral drug administration. The course is taught concurrently with PNE 1106. Prerequisites: PNE 1101, PNE 1102, PNE 1103, PNE 1105, and PNE 1201.

**PNE 1204 Pediatric Practicum (½ quarter)** 1 0 15  
 The nursing care of children age one to twelve is experienced in this course in one of three hospital pediatric units. Children with a variety of medical and surgical disorders are assigned for student experience under supervision of a clinical teacher. This course is taught concurrently with PNE 1108. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

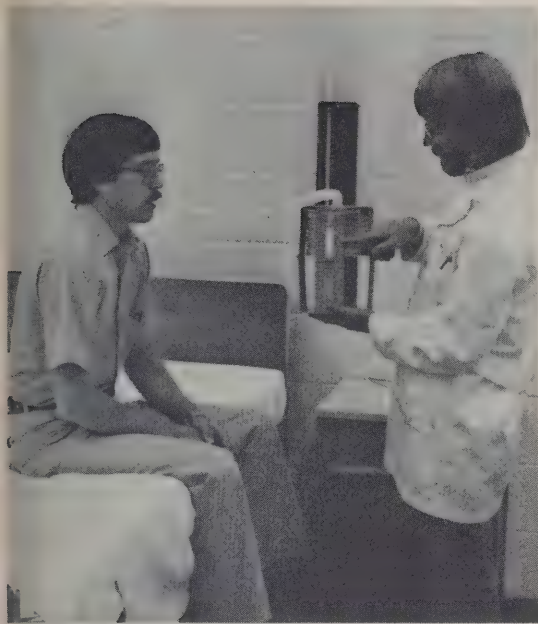
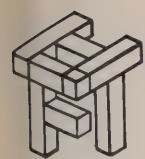
**PNE 1205 Medical-Surgical Practicum (½ quarter)** 1 0 15  
 This course includes the more difficult nursing care of surgical patients in one of two hospitals under supervision of a clinical teacher. The student will be assisted in making comprehensive nursing care plans and implementing the plans. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PNE 1206 Maternity Practicum (½ quarter)** 1 0 15  
 This is a hospital course of experience in all phases of maternity nursing. It includes nursing experience in the labor suite, the nursery, and the post-partal unit. It will be taught concurrently with PNE 1107. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PNE 1207 Rehabilitative Practicum (½ quarter)** 1 0 15  
 Rehabilitation nursing concepts are taught by assignments of patients with spinal cord injuries, debilitating arthritis and those learning to use various prosthetic devices. This experience is in a regional rehabilitative center and under the guidance of a clinical teacher. Prerequisites: PNE 1201, PNE 1202, and PNE 1203.

**PSY 1101 Human Relations** 3 0 0 3  
 Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and his work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.





Curriculum By Quarters

## RESPIRATORY THERAPY TECHNOLOGY/ TECHNICIAN T-091

The Respiratory Therapy Technician started in the early 1970's due to the shortage of manpower in this field. The technician program is one year in duration as compared to 2 to 4 years for a therapist program. The technician will find himself doing many of the same procedures as the therapist but is usually less trained in theoretical aspects of respiratory care.

There are currently over 50,000 respiratory therapy practitioners in the United States, and the future is bright for the respiratory therapy field. With the acute shortage of personnel and the high demand, job opportunities are numerous.

Forsyth Technical Institute offers a one-year program for the Respiratory Therapy Technician with classes starting in August each year. Upon completion of the program, graduates are eligible to take the national registry examination and become a Certified Respiratory Therapy Technician (CRTT).

Total credit hours: 69

Course Title		Hours Per Week			
		C	L	P	QH
<b>FIRST QUARTER</b>					
BIO 107	Anatomy and Physiology I	3	2	0	4
ENG 100	Oral Communications	3	0	0	3
CHM 103	Chemistry—General and Inorganic	3	2	0	4
BIO 115	Medical Terminology I	1	0	0	1
PHY 101	Concepts in Physics	3	0	0	3
MAT 113	Mathematics I	3	0	0	3
		16	4	0	18
<b>SECOND QUARTER</b>					
ENG 101	Introduction to Written Comm.	3	0	0	3
BIO 108	Anatomy & Physiology II	3	2	0	4
BIO 116	Medical Terminology II	1	0	0	1
RTH 105	Theories & Principles I	4	2	0	5
RTH 111	Clinical Experience I	0	0	9	3
RTH 287	Respiratory Therapy Pharmacology	1	0	0	1
		12	4	9	17
<b>THIRD QUARTER</b>					
BIO 111	Microbiology	3	2	0	4
RTH 139	Cardiopulmonary, Anatomy & Physiology	3	0	0	3
RTH 205	Pulmonary Diseases	4	0	0	4
RTH 112	Clinical Experience II	0	0	18	6
**NUR 3008	Cardiopulmonary Resuscitation	0	0	0	0
		10	2	18	17
<b>FOURTH QUARTER</b>					
RTH 145	Theories & Principles II	2	2	0	3
RTH 155	Critical Care	3	0	0	3
RTH 113	Clinical Experience III	0	0	33	11
		5	2	33	11

\*\*CPR certification by American Heart Association required for graduation.

C - Class

L - Lab

P - Practicum

QH - Quarter Hours Credit

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**BIO 107 Anatomy and Physiology I** 3 2 0 4

An introduction to normal structure and function of the human body. When relevant, clinical applications are made to relate normal structure and function to basic pathological conditions. Students are given the opportunity to employ their assimilated knowledge in class discussion and laboratory work. Laboratory participation introduces additional information which the student gains by participating in various lab exercises and learning experiences. Prerequisite: None.

**BIO 108 Anatomy and Physiology II** 3 2 0 4

A continuation of BIO 107 with emphasis on the vascular system, respiratory system, digestive system, urinary system, fluid and electrolyte balance, endocrine system, and the reproductive system. Prerequisite: BIO 107.

**BIO 111 Microbiology** 3 2 0 4

This is a one-quarter course designed to provide an understanding of microbiological principles and applications. Emphasis is placed on microbial classifications, structure and function, host-parasite relationships, and relations to man. Laboratory sessions are concerned with principles of identification, slide techniques, culture methods, and sterile procedures. Prerequisite: None.

**BIO 115 Medical Terminology I** 1 0 0 1

The first of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology I.

**BIO 116 Medical Terminology II** 1 0 0 1

The second of a series of two courses in which the student is introduced to terms related to all areas of medical science, hospital service, and paramedical specialties. Terms introduced parallel the topics covered in Anatomy and Physiology II. Prerequisite: BIO 115.

**CHM 103 Chemistry** 3 2 0 4

Students will be introduced in lecture to important chemical principles fundamental to the understanding of life processes. This will include a foundation in general and organic chemistry followed by the essential features of organic chemistry which lays the groundwork for the study of the biochemistry of living systems. Students are afforded the opportunity to expand their knowledge through classroom discussion and through laboratory work. The laboratory experiments are designed in some cases to introduce specific principles and in other cases to supplement and reinforce material introduced in lecture.

**ENG 100 Oral Communication** 3 0 0 3

The course provides the student the opportunity to improve his skills for public speaking, interpersonal communication, and group participation. Included are formal and informal speeches, class exercises, and conferences. Prerequisite: None.

**ENG 101 Introduction to Written Communication** 3 0 0 3

The course provides a review of basic English grammar and frequent writing exercises which requires the student to apply the principles of standard English usage. Assignments provide experience in combining ideas into sentences and in composing paragraphs and short essays using a variety of methods of development. Prerequisites: English 010 or passing score on screening tests.

**MAT 113 Allied Health Mathematics I** 3 0 0 3

The first of a series of two courses designed to develop a high level of proficiency in basic mathematical and algebraic skills for the student in a health career. Topics covered are whole numbers, fractions, decimals, percents, algebraic concepts, linear equations, functions and graphs, and trigonometric functions. Prerequisite: None.

**NUR 3008 Cardiopulmonary Resuscitation (CPR)** 0 0 0 0

This is a 12 hour course teaching the proper and up-to-date techniques of the method of cardio-pulmonary resuscitation. Course includes classroom and lab learning techniques. Prerequisite: None.

**PHY 101 Concepts in Physics** 3 0 0 3

Nonmathematical introduction to problems and concepts of physics. The major areas covered are mathematics, properties of mathematics, heat, sound, light, electricity and atomic theory. Emphasis will be on the association of physical principles of everyday phenomenon. Prerequisite: None.

**RTH 105 Theories and Principles I** 4 2 0 5

This course will provide the students with knowledge of gas physics, the need for oxygen and the control of ventilation. The theories and principles of oxygen and aerosol administration along with types of breathing therapies will be discussed in depth. The cleaning and sterilization of respiratory therapy equipment will also be discussed. Prerequisite: None.

**RTH 111 Clinical Experience I** 0 0 9 3

The student will assist respiratory therapy personnel in the performance of various duties to include oxygen, humidity, and aerosol therapy, plus the setting up, maintaining, and cleaning of equipment. Prerequisite: RTH 139.

**RTH 112 Clinical Experience II** 0 0 18 6

A continuation of RTH 111, Clinical Experience I. The student will perform various duties to include oxygen, humidity and aerosol therapy; the assembly, maintenance and cleaning of equipment; and the delivery of IPPB therapy, spontaneous nebulizer therapy, and incentive spirometry. Prerequisite: RTH 111, RTH 105.

**RTH 113 Clinical Experience III** 0 0 33 11

This course is designed to give the student an opportunity to perform and demonstrate knowledge gained in parallel courses. The student will receive clinical experience in pulmonary function testing, arterial blood gases, chest physiotherapy, and mechanical ventilation. Critical care will be stressed during this clinical experience. Prerequisite: RTH 112.

**RTH 139 Cardiopulmonary Anatomy and Physiology** 3 0 0 3

This course consists of a concentrated study of the structure of the respiratory system and its physiological relation to the heart and blood vessels. The student shall gain a deeper knowledge and be given a more sophisticated approach to these systems. Prerequisite: BIO 108.

**RTH 145 Respiratory Therapy Theories and Principles II** 2 2 0 3

A course designed to teach the respiratory therapy technician the theories and principles of chest physiotherapy and basic pulmonary function testing. Arterial blood gases and basic respiratory and hemodynamic monitoring will also be covered. Prerequisite: RTH 205.

**RTH 155 Critical Care** 3 0 0 3

This course will provide the student with the skills necessary for the care of the critically ill patient. Topics covered will include: intensive respiratory care of the adult, pediatric and neonatal patient. Ventilators and other equipment used in critical care will be discussed. Prerequisite: RTH 205.

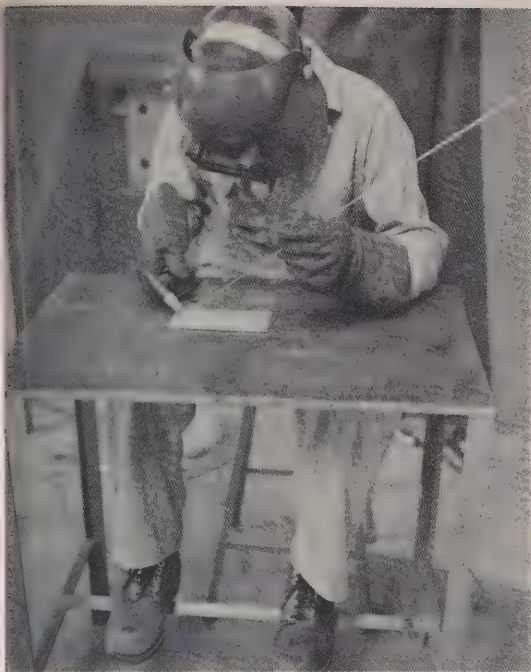
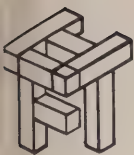
**RTH 205 Pulmonary Diseases** 4 0 0 4

The etiology, classification, diagnosis, progression, treatment, and prognosis of the most frequently encountered pulmonary diseases will be discussed. Prerequisite: RTH 105.

**RTH 287 Respiratory Therapy Pharmacology** 1 0 0 1

A lecture course designed to provide the student with a basic working knowledge of respiratory therapy medications. Pharmacological effects, indications, contraindications, drug interactions and side effects will be discussed. Prerequisite: None.





## WELDING AND METAL FABRICATION V-050

The Welding and Metal Fabrication program offered at Forsyth Technical Institute provides the student with the necessary experience in the welding and metal fabrication processes, and also broadens his technical education in such fields as blueprint reading, shop mathematics, metallurgy, and physical science. The principles of fabrication and fabrication equipment are taught in the shop each quarter along with the welding processes. Upon successful completion of the curriculum courses the student is given the standard American Welding Society (A.W.S.) Welder Qualification Test.

Total credit hours: 67.

### Curriculum By Quarters

Course Title			Hours Per Week			
			C	L	P	QH
<b>FIRST QUARTER</b>						
MAT	1101	Fundamentals of Mathematics	5	0	0	5
PSY	1101	Human Relations	3	0	0	3
DFT	1104	Blueprint Reading: Mechanical I	0	0	3	1
WLD	1120	Oxyacetylene Welding and Cutting	4	0	15	9
			12	0	18	18
<b>SECOND QUARTER</b>						
ENG	1101	Communications I	3	0	0	3
PHY	1101	Applied Science I	3	2	0	4
WLD	1121	Basic Arc Welding	4	0	15	9
DFT	1117	Blueprint Reading: Welding	0	0	3	1
			10	2	18	17
<b>THIRD QUARTER</b>						
ENG	1112	Communications II	3	0	0	3
MEC	1117	Metallurgy for Welders	2	0	3	3
WLD	1124	Advanced Arc Welding	3	0	12	7
WLD	1123	Inert Gas Welding	1	0	6	3
			9	0	21	16
<b>FOURTH QUARTER</b>						
BUS	1103	Small Business Operations	3	0	0	3
MEC	1112	Machine Shop Processes	1	0	3	2
WLD	1113	Mechanical Testing and Inspection	1	0	3	2
WLD	1126	Advanced Inert Gas Welding	3	0	9	6
WLD	1127	Introduction to Pipe Welding	1	0	6	3
			9	0	21	16

C - Class  
L - Lab  
P - Practicum  
QH - Quarter Hours Credit

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**BUS 1103 Small Business Operations** 3 0 0 3  
 An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. Prerequisite: None.

**DFT 1104 Blueprint Reading: Mechanical I** 0 0 3 1  
 Interpretation and reading of blueprints. Information on the basic principles of the blueprint, lines, views, dimensioning procedures and notes. Prerequisite: None.

**DFT 1117 Blueprint Reading: Welding** 0 0 3 1  
 This course is a study of mechanical blueprints and sketches in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications are emphasized. Prerequisite: DFT 1104.

**ENG 1101 Communications I** 3 0 0 3  
 A course in communicative skills stressing reading, writing, speaking, and listening. The course includes library research, planning and delivering effective oral presentations, participation in group discussions, and practice in developing listening skills. Prerequisite: None.

**ENG 1112 Communications II** 3 0 0 3  
 A course in communicative skills with emphasis on written communication in business and industry. Included are units on business letters; job employment; and records, forms and reports. Prerequisite: None.

**MAT 1101 Fundamentals of Mathematics** 5 0 0 5  
 Practical number theory, analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Prerequisite: None.

**MEC 1112 Machine Shop Processes** 1 0 3 2  
 To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations; hand grinding of drill bits and lathe tools; set-up work applied to the trade. Prerequisite: None.

**MEC 1117 Metallurgy for Welders** 2 0 3 3  
 This course is specifically designed to introduce the welding student to the science of metallurgy with the aim of giving him an understanding of the effects of welding heat upon the metals being joined. An understanding of the proper heat treatments of both ferrous parts and non-ferrous parts gives the welder an insight of the effects of his work. During this course, the welder is introduced to hardness testing, mechanical testing, metallographic techniques including microscopic examination of the structures of metals, and to the mechanical and non-destructive testing of welds. Prerequisite: None.

**PHY 1101 Applied Science I** 3 2 0 4  
 An introduction to some physical principles and their application in industry. Topics included are measurements in the English and metric system, properties of solids liquids and gases. Practical application is stressed by use of realistic problems and laboratory exercises.

**PSY 1101 Human Relations** 3 0 0 3  
 Development of understanding of relationships to other persons through some of the basic principles of human psychology. Study of the problems of the individual and his work situation in relation to society, group membership, and relationships within the work situation. Prerequisite: None.

**WLD 1113 Mechanical Testing and Inspection** 1 0 3 2  
 The standard methods for mechanical testing of welds. Types of test covered: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, nondestructive, V-notch, Charpy impact, etc. Prerequisite: None.

**WLD 1120 Oxyacetylene Welding and Cutting** 4 0 15 9  
 Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead positions, brazing, hard and soft soldering. Safety procedures stresses throughout the program of instruction in the use of tools and equipment. Performance of mechanical testing and inspection to determine quality of the welds. Prerequisite: None.

**WLD 1121 Basic Arc Welding** 4 0 15 9  
 The operation of AC transformers and DC motor generator arc welding sets. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt, and fillet, welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures emphasized in the use of tools and equipment. Prerequisite: None.

**WLD 1123 Inert Gas Welding** 1 0 6 3  
 Introduction and practical operations in the use of inert-gas-shield arc welding. A study of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding. Prerequisite: None.

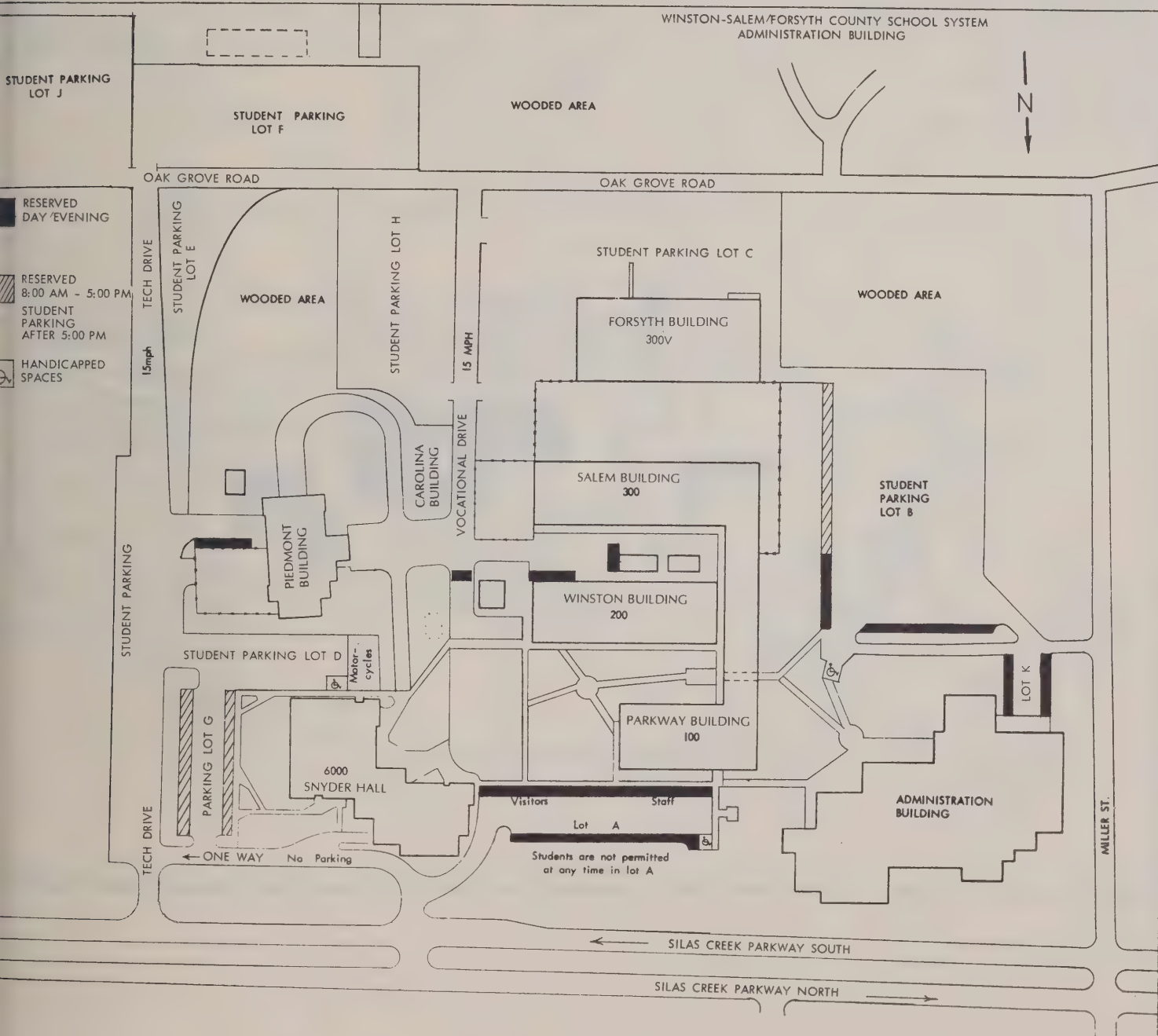
**WLD 1124 Advanced Arc Welding** 3 0 12 7  
 Extensive practice in the welding of different metals in all positions. The micro-wire welding process and a thorough study of such topics as principles of operation, nomenclature of machine, filler metals and shielding gases for the different type of metals. Special processes such as hard-facing laser beam and ultra-sonic welding. Introduction to the welder certification procedures and practices. Prerequisite: None.

**WLD 1126 Advanced Inert Gas Welding** 3 0 9 6  
 A continuation of WLD 1123. Theory and practice in inert gas welding. Both ferrous and non-ferrous welding applications covered. Inert spot welding, CO<sub>2</sub> welding, gas metal-arc, mig pipe welding, and automatic welding are taught. Special consideration given to shielding gases and certification procedures. Prerequisite: None.

**WLD 1127 Introduction to Pipe Welding** 1 0 6 3  
 Designed to provide practice in the welding of pressure piping in the horizontal, vertical and horizontal fixed positions using shielded metal arc metal processes according to the ASME code.

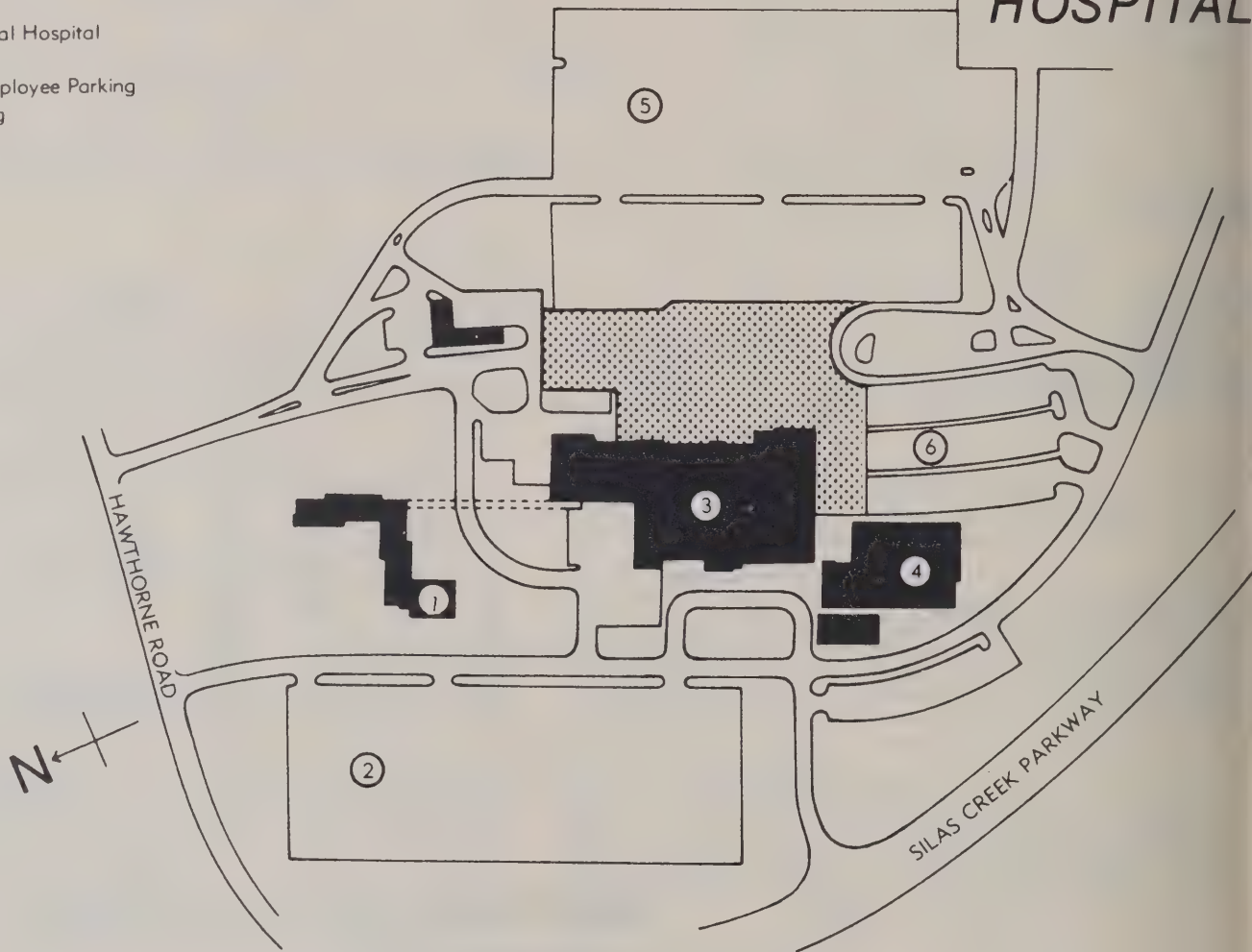


# MAIN CAMPUS



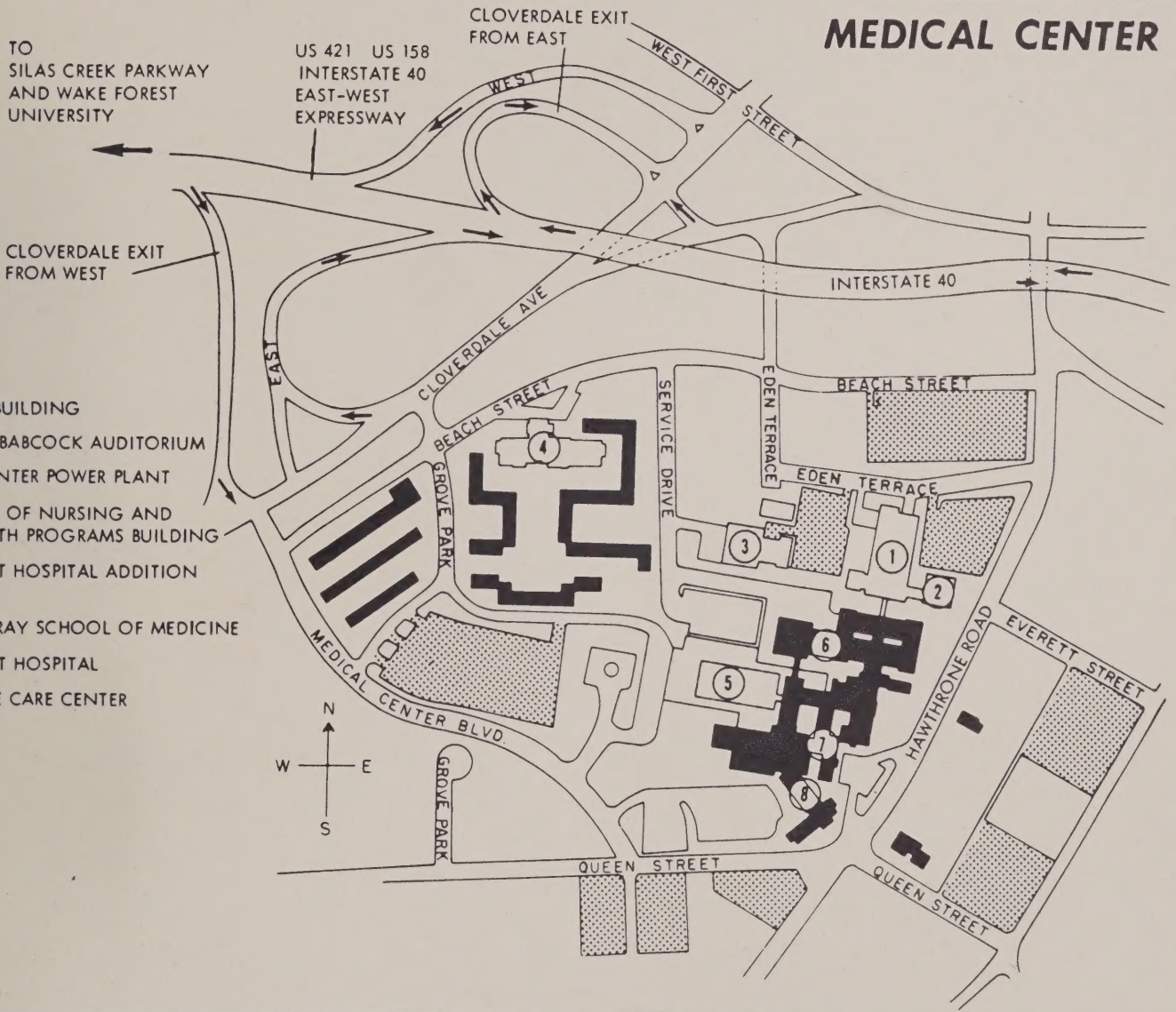
1. Paramedical Building
2. Student Parking
3. Forsyth Memorial Hospital
4. Whitaker Care
5. Faculty and Employee Parking
6. Doctor's Parking

# FORSYTH MEMORIAL HOSPITAL





# MEDICAL CENTER



- THE HANES BUILDING
- CHARLES H. BABCOCK AUDITORIUM
- MEDICAL CENTER POWER PLANT
- THE SCHOOL OF NURSING AND ALLIED HEALTH PROGRAMS BUILDING
- N.C. BAPTIST HOSPITAL ADDITION
- BOWMAN GRAY SCHOOL OF MEDICINE
- N.C. BAPTIST HOSPITAL
- PROGRESSIVE CARE CENTER

PARKING







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